

**PUBLIC HEALTH
DEPARTMENT**



Annual Report

OF THE

Public Health Department

OF THE

City of Dundee

FOR THE YEAR 1947

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MEDICAL OFFICER OF HEALTH



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CITY OF



DUNDEE

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CITY OF DUNDEE

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR ENDING DECEMBER, 1947

DUNDEE :

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. I N D E X.

	PAGE
Summary of Vital Statistics	4
Hospitals	5
General Death-Rate	6
Cardio-vascular Disease	7
Cancer	7
Births and their Management	7
Deaths Associated with Childbearing and Childbirth including Infant Deaths	8
School Health Service	10
Dental Services	12
Health Visitors	13
Epidemic Infectious Disease	14
Diphtheria	14
Poliomyelitis	14
Gastro-enteritis	15
Tuberculosis	16
Venereal Diseases	19
Health Education	21
Blind Persons	22
Home Help Service	23
Housing and Sanitation	23
Statistical Tables	25
Sectional Reports: —	
King's Cross Hospital—Dr. William M. Jamieson	52
Tuberculosis—Dr. D. G. McIntosh	71
Ashludie Sanatorium—Dr. D. H. Smith	87
Dundee Mental Hospital—Dr. A. Allan Bell	96
Maryfield Hospital—Dr. W. A. Davidson	110
Venereal Diseases Scheme—Dr. D. M. Keay	125
Bacteriological Services—Professor W. J. Tulloch	132
Maternity Services—Dr. Annie A. Fulton	135
Pre-school and School Health Services— Dr. J. A. Cuthbert	165
Dental Services—Mr D. A. Finlayson	202
Sanitary Services—Mr W. M. Smith	209

SUMMARY OF VITAL STATISTICS FOR 1947

Population,	180,730
No. of Deaths (corrected),	2,467
Death-rate per 1,000 population,	13.7
Deaths of Infants under 1 year,	291
Infantile Death-rate per 1,000 births,	70
Marriage-rate per 1,000 population,	10.0
No. of Births registered (corrected),	4,169
Birth-rate per 1,000 population,	23.1
Illegitimate birth-rate per 100 births,	6.6
Still-births per 1,000 births (including still-births),	25
No. of Deaths from Pulmonary Tuberculosis,	149
Death-rate per 1,000 pop. from Pulmonary Tuberculosis, ... ..	.82
No. of Deaths from all forms of Tuberculosis,	169
Death-rate for all forms of Tuberculosis, ... ..	.94
Death-rate from Principal Epidemic Diseases, ... ..	.08
Deaths from Diphtheria,	2
Maternal Mortality per 1,000 births, ... ..	.96
Neo-natal Mortality,	33
No. of Deaths from Malignant Diseases,	328
Death-rate from Malignant Diseases,	1.8

Annual Report—1947

The Lord Provost, Magistrates and
Town Councillors of the City of Dundee.

LADIES AND GENTLEMEN,

I submit herewith report on the work of the Public Health Department during the year 1947. This introductory letter draws attention to the more important happenings. Details of the work carried out by the various sections of the Department are contained in the reports prepared by the medical officers in charge.

The year 1947 was the last complete calendar year during Hospitals. which the Town Council have responsibility for providing and maintaining hospital beds. In July of the present year, all the Public Health Department hospitals pass to the Eastern Regional Hospital Board along with the hospitals of other local authorities and of voluntary bodies within the Region. The Town Council of Dundee has been a hospital authority for over three quarters of a century. At first the provision of a few beds for the isolation of the more widespread epidemic conditions was the limit of their responsibility. Gradually their power and duties increased, and since 1930, when the Local Government (Scotland) Act, 1929, came into operation, they have had direct responsibility for the maintenance of four large hospitals of different types capable of accommodating over 1,500 patients. In addition, the Corporation have by arrangement the use of a number of beds in hospitals other than those under their own management. To begin with, the main hospital responsibility of the Corporation was isolation. Latterly, the main hospital responsibility has been treatment.

It is not proposed to discuss the effects of the National Health Service (Scotland) Act, 1947. Hospitals are mentioned because they are of great importance to the future efficient functioning of the Local Health Authority. The fact that the Authority will no longer maintain hospitals matters little. Indeed, the transfer of hospitals to an authority concerned with hospitals and nothing but hospitals is all to the good. The important question is whether or not the Town Council of Dundee, through its Public Health Department, will have the power of admitting patients to hospitals when, in the opinion of the responsible officials, hospital treatment is considered necessary in order to control the spread of infection or because the environmental conditions are such as to make it impossible adequately to treat a patient in his or her own home. This power of admission should also cover maternity cases. It is not suggested that all cases from Dundee should be admitted to the hospitals through the Public Health Department. That is unnecessary. At the same time, there is no question that the control of admissions of patients to King's Cross Hospital, Ashludie Sanatorium and Maryfield Hospital by the officials of the Public Health Department in past years has ensured that the available accommodation was used to the best advantage. The need for hospital treatment should be assessed not only on clinical evidence but on social conditions. Some system of selection will be necessary for some time at least until the hospital service and social services generally are more completely organised.

The transfer of hospitals to the Regional Hospital Board may result in Dundee sustaining a reduction in the number of beds available to its residents because hospitals hitherto open only to Dundee people may now admit patients from any area in the Eastern Region. While hospitals elsewhere in the Region will be open to Dundee residents, it is probable that the balance for a time at least will be unfavourable to Dundee.

So far as statistics are concerned, the year 1947 produced some good figures and some not so good. The general death-rate at 13.7 per 1,000 population was satisfactory, although not a record. Most of the years between 1930 and 1939 had general death-rates below 14 per 1,000. In 1935 it was 13.2 so that we have yet to return to pre-war levels.

On examining the certified causes of death one is impressed as always by the number of deaths recorded as due to conditions of the heart and circulation. Actually 762 deaths out of a total from all causes of 2,467, or nearly one third of all the 1947 Dundee deaths, were certified as being caused by diseases of the circulatory system. There is evidence that an increasing proportion of the total deaths is due to this group of causes, and, while the changing age distribution of the population may explain the rising incidence, the evidence is sufficient to justify special provision in the lay-out of the new medical services and an organised investigation into the causes—immediate and social—so that preventive action can be taken along sound lines. It is known that the causes are many and complex, and any enquiry must depend on the united efforts of many specialists including clinician, bacteriologist, pathologist, bio-chemist, social (including industrial) health worker and statistician. The leader of such a team should be a clinician who has made a special study of cardio-vascular conditions not only from the clinical but also from the social side.

Cardio-vascular
Disease.

Some comments on the incidence and mortality of cancer were contained in the combined annual report for the years 1941 to 1945. These comments still hold good. The figure for 1943, namely 2.37 deaths per 1,000 population, still remains the peak death-rate and the rate of 1.81 for 1947 justifies the hope that the tendency to decline is continuing. This disease remains second to the cardiac group as a cause of death and no doubt it will receive the special attention which it requires in the new organisation, so that early recognition, followed by prompt treatment, will be available to everyone suspected to be suffering.

Cancer.

The birth-rate for 1947 was 23.1 (corrected for transfers) per 1,000 population exceeding the high rate for 1946 of 22.3 per 1,000. There were 4,682 births registered as having taken place within the City. The resources in and out of institutions were severely taxed in the endeavour to provide skilled attention to every case. The usual co-operation between the staffs of the Royal Infirmary and Maryfield Hospital ensured that full use was made of the indoor accommodation in both these Institutions. Of the total births, 82.9 per cent. were conducted in institutions, and 17.1 per cent. were domiciliary cases. Of the indoor institutional cases, 1,658 took place in the maternity wards of the Royal Infirmary, 1,220 in Maryfield Hospital, 494 in Clement Park Nursing Home and 611 in private

Births and their
Management.

nursing homes. Of the domiciliary cases, 418 were attended by the district service of the Royal Infirmary. About 400 were looked after by outside institutions, by doctors or midwives or both by private arrangement. The domiciliary work is steadily shrinking, patients showing an increasing desire to go into hospital. During the present year, the birth-rate shows definite signs of falling, and it is likely that a higher proportion, although not a higher number of births, will take place inside institutions. Evidence accumulates in support of the view that a high standard of midwifery from early pregnancy onwards is of supreme importance to the health of the mother and of the infant. Every effort is being made to see that the services provided to Dundee women are the best. Shortage of staff makes it difficult, but the institutions have always managed to make full use of their accommodation. There are now very few midwives in private practice in the City. Their services will be used either on a case basis or it may be on a whole-time basis under the National Health Service (Scotland) Act, 1947. It is hoped that the district work of the Royal Infirmary and the midwife service of the Local Health Authority will be integrated in such a way as to provide for the City a single service. This is of interest to the public and the general medical practitioner. It is also important for the training of an adequate number of midwives and medical practitioners.

The death-rates that one associates with child-bearing and childbirth are those relating to maternal deaths, deaths of infants before birth but after the 28th week of pregnancy, and also infant deaths, especially newly born infants. The year 1947 produced very satisfactory maternal mortality and stillbirth rates. Unfortunately, the infant death-rate showed a considerable rise on the 1946 record figure. This rise, however, cannot be attributed to conditions prevailing before or during birth but was mainly due to an outbreak of gastro-enteritis affecting infants in the later months of the first year of life. Judging by the death-rates, the standard of midwifery was not only maintained but improved during the year.

In 1947, ten Dundee women died during pregnancy or the puerperium, but in the opinion of the Registrar-General only four of these deaths can be accepted as due to child-bearing or childbirth. This gives a maternal mortality rate of .96 per 1,000 registered births, by far the lowest figure ever recorded for Dundee. In

Deaths
associated with
Child-bearing
and Childbirth
including
Infant Deaths.

1946 the rate was 2 per 1,000, and when it is noted that the years before the war produced rates of 6 or even 7 per 1,000, it must be admitted that definite progress has been made even although changes in the selection of cases for inclusion in the maternal mortality rate may account for part of the fall. The decline has been steady and would appear to be associated with the development of the maternity service, especially on the institutional side. In two of the four 1947 deaths, sepsis occurred (one after abortion and one after miscarriage). One death was due to a toxæmia and the fourth occurred during anaesthesia.

The stillbirth rate fell from 33.65 per 1,000 registered births in 1936 to 25 in 1947. This is the lowest figure yet recorded. In 1940, the rate was 52 per 1,000, that is, more than double the 1947 figure. The real causes of stillbirths are very difficult to determine, but it is generally accepted that the health of the mother and a high standard of medical care during pregnancy and confinement are important factors. Looking through the registered causes it is evident that difficult labour is very frequently responsible. As with maternal mortality, an improved stillbirth rate follows an improvement in the maternity service.

Unfortunately the number of deaths of infants under one year increased very markedly last year resulting in a rise in the infantile death-rate from 47 per 1,000 live births in 1946 to 70 per 1,000 in 1947. This is the highest rate since 1941. The rise had little to do with the maternity service, but followed a serious outbreak of gastro-enteritis in infants. Some 81 deaths among infants were included in the group of deaths due to "diarrhoea and enteritis" last year compared with only 10 in 1946. This outbreak is referred to later in the report.

In preventing deaths of infants under one year of age, it is important to note that last year 12 such deaths were believed to be due to accidental suffocation usually the result of overlaying. The preventive measures are obvious and although housing conditions, especially overcrowding, have a bearing on the problem, health visitors must advise mothers of the dangers. The victims last year were, as is usual, very young babies.

The neonatal mortality rose from 27 in 1946 to 33 per 1,000 live births in 1947, but as 11 deaths at ages under one year were caused by gastro-enteritis compared with only 4 in 1946, the outbreak of that infection had some effect. There was a marked increase in the number of deaths attributed to atelectasis and to other diseases peculiar to early infancy.

The combined total of the stillbirth rate and the neonatal death-rate, namely 57, is a fairly satisfactory figure and the lowest recorded. This combined total is a rough measure of the effect on the health of the infant of pre-natal and natal life.

The school health organisation remains substantially the same as it was when the last annual report was issued. The work reviewed by Dr Cuthbert, the Chief Executive School Medical Officer, relates to the school year ending July, 1947, and not to the calendar year ending December, 1947, as is the case with other sections of the report. This is unsatisfactory as it leads to confusion in reporting on certain services which are common to school children, infants, expectant mothers, persons suffering from infectious diseases, etc. The health year has always been the calendar year. The school health service is a definite part of the public health service, a fact which is fully recognised and approved by all concerned in Dundee. The staff of the Education Department in the central office and in the schools co-operate closely and willingly with the doctors and nurses. Their assistance is very much appreciated.

There is a possibility of misunderstanding and even confusion in the future due to the fact that the local authority must provide certain medical services for school children and that it will be the duty of the Secretary of State to provide exactly the same services through regional hospital boards and executive councils. Apparently the Town Council of Dundee must provide all forms of treatment to school children including specialist treatment while the Dundee Executive Council and the Eastern Regional Hospital Board are obliged to provide exactly the same service, the former body being responsible for the general medical practitioner service and the latter for the service of specialists and for hospital accommodation. Unless the distribution of responsibility is made clear, it would seem likely that children will be treated at clinics who could quite well be attended by their own family doctors. This

would be very unsatisfactory and confusing to both the personnel of the school health service and to the conscientious general medical practitioner. The position regarding specialist treatment at child welfare centres also requires to be made clear.

The responsibilities of the school health service are multiplying. This is due not only to the constant increase in the forms of service given but also to the marked increase in the number of children entitled to use the service. The school population has increased by the opening of nursery schools and nursery classes and the opening of the Pre-Nursing School and of the Dundee Trades College as well as by the raising of the school age. The organisation must be developed to enable it to deal with the increasing responsibilities. This means more doctors, dentists, nurses and clerical staff. It also means larger and better office and clinic premises. These matters are receiving attention but progress is slow. The increasing responsibilities make it all the more necessary that there should be no overlapping of services provided by different authorities under different statutes. The medical inspection given to each child cannot be described as very thorough. A detailed examination is not possible in the time available. During the school year under review an average of 23 to 24 children were examined in a session of not more than 3 hours allowing about seven minutes to each child. Not very much can be done in that time. Special arrangements are of course made for the thorough investigation of every child showing any evidence of ill-health.

Dr Cuthbert's report gives detailed information of the results of medical inspection and of the treatment of the conditions found. The evidence points to an improvement in the general health of school children. In the matter of nutrition the figures for "slightly defective" and "bad" were much better than those for the previous year. The standard of cleanliness and other conditions, the incidence of which might be used to assess the well-being of the children, showed definite signs of progress. The treatment service is fairly complete and it may be said that school children can receive within a reasonable time the kind of treatment they require. There are delays in some cases. For details, reference should be made to the report on the school medical services. The figures showing defects are very large and somewhat alarming as also are the number

of children attending clinics for attention. They are not very different from those of other years and of other areas but they suffice to show that while the health of the school child is improving, he is not yet by any means a perfect specimen. Fortunately the majority of the defects recorded are minor defects and may not handicap the children to any very great extent at the moment. They require and receive attention now in order to prevent them from becoming serious disabling conditions.

Dental
Services.

The annual report of the Senior Dental Officer covers the school year ending July, 1947. This is convenient as the bulk of the work carried out by the dental officers is among school children. As explained in earlier reports the dental officers also provide dental services to the patients and staffs of the four large hospitals of the Department, to nursery schools, nursery classes and day nurseries and to patients attending the Local Health Authority antenatal clinics.

For various reasons it will be necessary to increase the dental staff and the number of dental surgeries. Proposals on the care of mothers and young children submitted to the Secretary of State in terms of the National Health Service (Scotland) Act provide for the addition of one dental officer and one dental attendant with the necessary equipment and surgery accommodation. This additional officer will be engaged mainly in attending clinics when it is hoped to establish contact with infants and children who are not attending day nurseries, nursery schools or nursery classes. The raising of the school age, the tendency for the treatment acceptance rate to rise, the widening of the form of treatment given to include crown work, orthodontics and dentures and the addition of the Dundee High School children make it absolutely necessary to increase the personnel of the dental service to school children if the work is to be done with any degree of completeness and efficiency. Difficulties connected mainly with clinic premises tend to slow up action but these will gradually, although too slowly, be overcome sufficiently to permit of at least temporary arrangements being made.

Mr Finlayson, in his report, submits details of the number inspected and treated in schools, clinics, nursery schools, nursery classes, day nurseries and hospitals.

Like all varieties of trained personnel, health visitors are in short supply. Only a limited number of places are available in the Scottish training schools for those who wish to concentrate on this class of work with the result that the number receiving the certificate each year is not sufficient to satisfy demands. It is felt that a training school should be started in Dundee, but it would be difficult to find the teachers, premises and equipment necessary. The kind of training to be given is of course to a large extent controlled by the examinations which must be passed but as is evident from the recommendations contained in the Report of the Working Party on the Recruitment and Training of Nurses, everyone does not agree that the present position is satisfactory. Certain it is that it takes a long time, much study and numerous examinations to produce a health visitor. It is difficult to believe that the present position could not be improved so as to produce a greater number of health visitors in a shorter time. Nevertheless, before long, the Local Health Authority will have an opportunity of considering the advisability of starting a training school in the City.

Health
Visitors.

Although below establishment in trained personnel, the various sections of the Department managed to carry on fairly well by using temporary and part-time staff. There is a natural tendency to sacrifice the most important part of the work of the health visitors, namely, home visitation, when there is a shortage of staff. That, of course, is quite wrong. Health visiting must suffer if the staff is not sufficient but so must the clinics and so must routine inspections in schools. The tendency is to take the easy way and reduce visiting in the district. The health visitors' duties are essentially educational and advisory. She can perform these duties with most effect in the homes of the people. This will be all the more important under the new regime when the health visitor becomes responsible for the whole family and not only for certain members. She cannot see all the members of a family at a clinic. It is important that health visitors should attend clinics but only if while there she is engaged mainly in advisory and educational work. Voluntary workers have always given valuable assistance at clinics and efforts are being made to increase the number so that health visitors will be released from routine clinic work and thereby be able to concentrate on the work for which they have been specially trained.

As usual special courses of lectures to health visitors were arranged in order to maintain their interest and to keep them informed of developments in the field of public health. In 1947 some

12 such lectures were given, the subjects including the New Health Service (2), Venereal Diseases (4), Lactation (3), Blood Transfusion and Rh Factor (1), The Curtis and Clyde Reports (1), Nutrition (1). The lectures which included demonstrations when possible and discussions were greatly appreciated by the health visitors. The Department is very much indebted to the lecturers, some of whom came from a considerable distance.

**Epidemic
Infectious
Disease.**

Apart from tuberculosis, there were 4,077 notifications and intimations of epidemic infectious disease. Of these over 900 were intimations of chickenpox, some 450 of whooping cough and over 400 of measles. Primary pneumonia provided 434 notifications. Hospital accommodation was sufficient, all cases requiring hospital treatment being admitted mainly to King's Cross Hospital.

Three infections require special mention, namely diphtheria, poliomyelitis and infantile gastro-enteritis.

Diphtheria.

Diphtheria continues to show a steady decline both in incidence and fatality. During the year there were 164 notifications, but in only nineteen of these was the diagnosis accepted. This is by far the lowest incidence of the disease ever recorded for the City. There were two deaths, both laryngeal in type, neither child having been immunised. These are the only two deaths in the City since March, 1944. The decline in incidence and severity has coincided with an increase in the number of children immunised. Current figures indicate that 84 per cent. of children around the age of one year are now being inoculated. In addition, a further 9 per cent. are done for the first time on going to school, so that approximately 93 per cent. of the child population are inoculated before or soon after entering school. If these satisfactory figures can be maintained or bettered, there are good grounds for hoping that diphtheria will disappear entirely from the community.

Poliomyelitis.

The outbreak of poliomyelitis which affected the country as a whole during the summer and autumn of 1947 was the largest ever experienced in this country. In Dundee, the first cases were admitted to hospital in August and the incidence reached its peak in September (24 cases). The outbreak was over by the end of November. Altogether there were 40 confirmed Dundee cases with three deaths (fatality rate 7.5 per cent.). Some of these cases had been notified as suffering from other diseases. All ages were affected, the

oldest being a male aged 44 years, the youngest an infant under the age of one year. Approximately half the cases, however, were below the age of five years. One curious feature of poliomyelitis, referred to by Dr Jamieson in his report, is that it most commonly occurs in the most highly civilized communities, and it is interesting to find that three-quarters of the cases in this City came from homes where the general and sanitary conditions were assessed as good.

In about half of those affected, paralysis was either slight or absent, and of the remainder the majority were classified as moderate. There were, however, several severely paralysed patients, and the mechanical respirator (iron lung) had to be used in three of these. It is important in the proper management of poliomyelitis to have the services early of an orthopaedic surgeon, both for the detection (not always an easy matter) and treatment of paralysed muscles. This was obtained in Dundee through the co-operation of Mr Smillie, the Regional Orthopaedic Surgeon, who arranged for the transfer to Bridge of Earn Hospital of all patients requiring specialised therapy.

The end results of the outbreak, as far as can be judged at the time of writing, are as follows:—

Residual paralysis nil,	20	(50%)
Residual paralysis slight, interference with function minimal,	13	(32.5%)
Residual paralysis severe, interference with function severe,	4	(10%)
Died,	3	(7.5%)
Total No. of Cases,		40 (100%)

For details of the clinical aspect of the outbreak, reference should be made to the report by Dr Jamieson on King's Cross Hospital. As cases were admitted to the Hospital from outwith the City, the figures are somewhat higher than those quoted here.

An outbreak of infantile gastro-enteritis occurred during the year, beginning in the early summer months and continuing with very little remission throughout the winter. The fatality rate was high. All ages between one and twelve months were affected, but the greatest number of cases occurred in infants between three and seven months. Until recently only one case below the age of one

Gastro-enteritis.

month was admitted to hospital with the disease. The condition is almost certainly infective in origin, but the causal organism has not yet been identified, and indeed it appears likely that there may be several aetiologically different infections contained within the broad term of "gastro-enteritis of unknown origin." It is probably significant that, in the disease as it affects infants over the age of one month, not a single case was completely breast fed. On the other hand, in a recent outbreak (1948) in a local maternity hospital, the majority of the affected babies were, in fact, completely breast fed. It would appear, therefore, that disease affecting newly born babies in hospital has a different aetiology from that affecting infants over the age of one month. Similar outbreaks have occurred throughout the country as a whole, and research work is already in progress in many centres, including our own. This work will certainly be extended, and in the near future teams of workers drawn from clinical bacteriological, pathological, biochemical and epidemiological specialities will be devoting considerable time to the many problems associated with this, at present, rather obscure but important subject. Mean time it might be well to stress the importance of encouraging mothers to breast feed their babies, and where this is for any reason not possible, to adopt the most scrupulous care in the preparation of artificial feeds and in the thorough cleansing of feeding bottles and teats.

More details regarding the Dundee experience of gastro-enteritis can be found in Dr Fulton's (Maternity and Infant Welfare Medical Officer) and Dr Jamieson's (King's Cross Hospital) sections of this report and in the statistical tables.

The tuberculosis death-rate is another figure which is tending to rise. The rate for all forms of the disease last year was .94 per 1,000 population compared with .87 for 1946. It was the highest since 1931 with the exception of 1942. It is unnecessary to discuss the subject in any detail here as Dr McIntosh, the Tuberculosis Medical Officer, gives a very full and interesting account of the position in his section of this report. He shows that both incidence and mortality are on the increase and suggests causes and possible remedies. It is disappointing that there should be an increase in the prevalence and in the deaths from a disease which is always associated with unsatisfactory social conditions. It was hoped that, the war being over, the infection would at least remain stationary, if not show a tendency to decline.

It is well known that the two principal sources of infection are (a) milk and (b) the person who is suffering from tuberculosis. While infected milk may produce any form of tuberculosis in the consumer, it is associated mainly with the non-pulmonary type and it is satisfactory to know that the non-pulmonary tuberculosis death-rate is steadily declining, last year's figure being the lowest recorded. The inference is that milk is becoming safer and that the milk problem is on its way to solution. Nevertheless, while we look forward to the day when only milk from cows proved to be free from tuberculosis will be available, it seems a pity that the introduction of pasteurisation as a compulsory measure is so long delayed. It is certain that efficient pasteurisation of milk will destroy the causative organism of tuberculosis and will render the milk free not only from that disease but also from other milk-borne infections. Those who can speak with authority are convinced that all milk, including that from cows which do not react to the tuberculin test should be pasteurised. With tuberculosis on the increase, there seems no excuse for neglecting to apply a preventive measure which will reduce the number of persons infected. It must, of course, be kept in mind that infected milk may produce disease in some people but a degree of immunity in others, and that if all milk is rendered safe this immunity will not be created. Thus another problem may appear. We cannot consider milk as a vaccine and in any case no one would consider giving any vaccine which, although it might protect some people, would certainly produce disease in others. Fortunately the facilities in Dundee for efficient pasteurisation are improving and one can conclude that the fall in the non-pulmonary death-rate is related to this improvement as well as to the increasing tendency to demand milk from tuberculin tested cows. The large number of milk grades confuses the public and the sooner the number is reduced the better.

The other source of infection is the individual who is suffering from tuberculosis especially of the lungs. Many people are known to be suffering from tuberculosis but many others are affected but their condition has not been recognised. They may not be sufficiently ill to justify calling in a doctor or they may be suffering from a chronic condition of the lungs labelled possibly bronchitis, but all the time they are excreting tubercle bacilli. This unknown group is more dangerous than the known group because the individual members are moving about among their fellows—at home and at

work—spreading the disease and creating new centres of infection. It is difficult to say how important this unknown group is. Fairly large numbers of presumably healthy people have been examined elsewhere by mass miniature radiography and if the results of these investigations are applied to Dundee some 1,800 people resident in the City have tuberculous lesions in the lungs but are unaware of it. Of these 600 require treatment and 300 are excreting tubercle bacilli in the sputum. These figures are alarming and emphasise the importance of getting these unknown centres of infection under control not only in the interests of the individuals concerned but of their contacts and of the community generally.

Regarding the group of known patients, on 31st December, 1947, there were records of 1,093 cases of lung tuberculosis and 177 cases of non-pulmonary tuberculosis living in Dundee. Tubercle bacilli were found in the sputum of 178 of the lung cases and not found in 327. In 384 sputum was not present and in 204 the sputum was not examined. While these cases are known to us, it cannot be said that they are under control. Inadequate institutional accommodation makes it impossible to provide the necessary treatment and isolation immediately the disease is discovered, and there is always a waiting list of patients urgently requiring treatment and isolation. Unfortunately many of these are living under conditions which make it impossible to prevent the spread of the disease to their immediate contacts.

The above evidence points to the need for earlier diagnosis and more hospital or sanatorium beds. Mass miniature radiography will assist in the effort to discover cases at a stage when they are curable and before they become dangerous to others. It will also detect the chronic dangerous case. The mass radiography premises and equipment are now almost ready for use and it is hoped that, when they are ready, the public of Dundee will take full advantage of the facilities. The provision of institutional accommodation is now a matter for the Eastern Regional Board and one can be sure that every effort will be made by that Board to secure the badly needed beds.

While these special measures are being carried out it must not be forgotten that tuberculosis is a social disease and must be dealt

with as a social problem. It is difficult to avoid the conclusion that the increase in prevalence is a direct result of bad housing conditions, especially overcrowding. Constant proximity of individuals in an overcrowded and insanitary dwelling house certainly facilitates the spread of and lowers the resistance to infection. The standard of housing has not improved in recent years. Rather has it deteriorated. Many houses now in occupation were years ago represented and dealt with as being unfit for human habitation. Many others would have been similarly dealt with had there been sufficient alternative accommodation. The rate at which new houses are being built is not sufficient to meet the needs of the increasing population, of families who are sharing and overcrowding houses and of families who are occupying insanitary houses and houses which are unfit for human habitation. Until we can get a start with closing orders, demolition orders and clearance orders, I feel that it will be difficult to make any very definite impression on the tuberculosis death-rate.

Naturally one thinks of the possibility of creating artificial immunity to tuberculosis by inoculation of a vaccine or other immunising agent. This method has been used with success in getting rid of smallpox and it seems likely to be successful in abolishing diphtheria. A living but not dangerous vaccine known as B.C.G. has been tried out in other countries and while the evidence is conflicting it would seem to be sufficiently favourable to justify trial in this country under strict supervision. It is hoped that the Government will arrange such a trial as we cannot afford to neglect any possible method of getting the disease under control.

Reference should be made to the very interesting and informative reports by Dr McIntosh, the Tuberculosis Medical Officer and Dr Smith, Superintendent, Ashludie Sanatorium.

The evidence provided by the treatment centres suggests that there was a very marked reduction in the incidence of venereal diseases compared with the previous year. In 1947, 1,692 new patients (1,167 males and 525 females) presented themselves for examination compared with 2,400 (1,570 males and 830 females) in 1946. While the incidence of venereal diseases cannot be measured by the attendances at the treatment centres, nevertheless the attendance figures give an indication of the general tendency, and it is

Venereal
Diseases.

justifiable to conclude that a fall of nearly 30% in the number of new patients is at least partly due to a decline in incidence. The drop in the number of patients found to be suffering from gonorrhœa or syphilis was even more marked, being well over 40%. In assessing the significance of these figures, it must be kept in mind that the number of new arrivals at the centre in 1946 was the highest ever, no doubt largely because of the disturbances such as demobilisation following on the end of the war. The new patient figure of 1,692 for 1947 may usefully be compared with that for 1938, the last complete pre-war year, namely, 1,105 and with the 1937 figure of 1,307. It is hoped the evidence can be interpreted as meaning that the effect of war conditions on the incidence of venereal diseases is now wearing off.

The fact that 1,120 of the new patients or 66% of the total attended at the centres on their own initiative suggests that the public are aware of the fact that skilled advice and treatment is available. As nearly 1,000 of the new cases proved not to be suffering from venereal disease, it would appear that the importance of seeking skilled advice after exposure is realised.

Like most diseases early treatment is more likely to meet with success and the comparative figures for males and females indicate the usual experience that males attend for treatment at a much earlier stage than females. Thus, of the new gonorrhœa cases in males, 94% were in the acute stage and 6% were chronic. For females, 67% were acute and 33% chronic. Syphilis provided the same sort of picture. Of the new male cases 55% were in the primary stage compared with 10% of the female.

On the new health service coming into operation, it looks as if this Department will not have much concern with the venereal infections. As with all infectious diseases, the medical officer of health will be responsible for their prevention but there is not very much he can do in a very active way. The health education programme must give a prominent place to venereal disease, and through health visitors every assistance must be given to persuade known contacts and sources of infection to attend for examination and treatment. Last year 61 of the new cases were known contacts of patients already attending. This figure could with advantage be increased by the discreet activities of the health visiting staff

co-operating with the medical officers of the treatment centres. A social worker should be on the staff of the centres but any visits in the district that may be necessary should usually be carried out by the health visitor. The social worker should only visit in very special circumstances and on the specific authority of the medical officer in charge of the patient.

Defence Regulation 33B ceased to operate on 31st December, 1947. This Regulation introduced a system of notification and compulsory treatment for certain patients known to be spreading disease. There may be a difference of opinion as to the value of the Regulation but it did at least enable contact to be established with certain dangerous centres of infection. It seems a pity that the Regulation was repealed without some pronouncement by the Government as to future policy. In 1944, the Medical Advisory Committee of the Secretary of State for Scotland made some useful suggestions on the subject of the notification and compulsory treatment of venereal disease. So far as I know the recommendations have been neither accepted nor rejected. Whether the element of compulsion will operate or not is a matter for the patient if the anonymous system of notification recommended by the Advisory Committee is introduced. It is worth giving the idea a trial.

Reference should be made to Dr Keay's report for further information, especially in regard to clinical matters.

Apart from many lectures given by members of the Public Health Department staff to selected audiences, the Public Health Committee in association with the Scottish Council for Health Education held a series of Sunday evening meetings in the King's Theatre. At these meetings, films on various health subjects were shown and at each meeting a chosen speaker from outwith the City gave an address and answered questions put by members of the audience. There were five such meetings held between April, 1947, and March, 1948, with an average attendance of nearly 1,000. The subjects dealt with undoubtedly created interest and the speakers were bombarded with questions.

The proposal to establish a health education unit as a section of the Public Health Department is still under consideration. This was the subject of a special report submitted to the Public Health Committee in June, 1947. The idea is strongly supported by the Scottish

Council for Health Education and a conference of representatives of interested authorities is being arranged in Edinburgh to discuss the matter. At the same conference the question of health education in schools will be considered. This latter question has been investigated by a Continuing Committee representative of directors of education, training colleges, medical officers of health and school medical officers appointed by a conference held in Edinburgh in December, 1946.

In the annual report for 1946, comments were made on the need for a high standard of hygiene in any occupation which involves contact directly or indirectly with food at any stage in its production, preparation and distribution. A campaign has just been launched by the British Tourist and Holidays Board to raise standards of hygiene in the multitude of catering establishments. At the end of last year a conference on the subject was held in London by the Central Council for Health Education. It is clear that a great deal requires to be done and the evidence suggests that improved standards will reduce considerably the ill-health which results from food infection. A local health education unit could give valuable assistance in a campaign of this sort but local health authorities can do a great deal now by exercising their existing powers. The sanitary inspector must take an active part in the campaign, the success of which depends very largely on him.

Blind
Persons.

In the course of the year, eleven sessions of the Regional Clinic were held and seventy-seven persons were examined. Of these, 44 were certified "blind" and 33 "not blind". Two of the persons examined belonged to the County of Angus; 6 to the County of Perth, and 69 to Dundee.

The total number of blind persons in Dundee is 491 and, of these, 351 are in receipt of domiciliary assistance.

There are 54 trained blind persons and 7 trainees employed by the Royal Dundee Institution for the Blind.

The general welfare work in connection with the blind has been carried out in co-operation with the Dundee Mission to the Outdoor Blind and the Royal Dundee Institution for the Blind.

The National Assistance Act, 1948, which comes into operation on 5th July, will result in a redistribution of functions relating to blind persons. The responsibility for the payment of domiciliary assistance will pass from this Department to the National Assistance Board. Welfare services required for blind persons will still be provided by the Town Council, no doubt mainly through the Dundee Mission to the Outdoor Blind.

The position in Dundee in respect of the home help service continues to be very unsatisfactory. The absence of an organiser makes it impossible to recruit suitable women and the poor demand for home helps is, I have no doubt, largely due to the fact that there is not an organised service. As in many of the public health services, supply creates the demand, and it is for the Local Health Authority to do what is necessary to encourage the use of home helps in homes where there are children, old folks and invalids. The people will become accustomed to the idea and realise the benefit which will follow in the way of health, comfort and happiness.

Home Help
Service.

Contacts are now being made with possible home helps in view of the fact that the Local Health Authority have decided to organise a complete service in terms of the National Health Service (Scotland) Act and once an organiser is appointed there should be little delay in developing the service.

During 1947, only 5 requests were received and these were satisfied.

The Chief Sanitary Inspector's annual report contains figures which give a very good impression of the sanitary condition of the City and of the work done and progress made during the year under review. The duties of the Sanitary Department staff are not easy these days and cannot give that feeling of satisfaction which would follow if the results achieved were in keeping with the work done. The figures relating to complaints and nuisances attended to, notices and intimations issued are impressive enough but unfortunately too much of the time of the inspectors is occupied not in getting rid of unfitness in houses and other premises but in attempting to keep the level of unfitness as low as possible. It would be much more satisfying if one could submit satisfactory figures relating to closing orders, demolition orders and clearance orders made and acted on. It looks as if a considerable time will pass before active steps can

Housing and
Sanitation.

be taken by this Department to get rid of unhealthy houses and unhealthy areas. Progress in this direction depends on the provision of new houses and while practically 1,000 new houses were completed last year many more must become available before one can close, improve or modernise existing houses.

Observations have been submitted on the effect of bad housing conditions on the incidence of and death-rate from tuberculosis. No doubt also there is a definite relationship between housing conditions and the high incidence of gastro-enteritis in infants and of other intestinal infections. In the absence of the necessary facilities, it is very difficult and often even impossible to maintain the standard of cleanliness necessary to ensure the absence of infection in food. Instruction by doctors, health visitors and nurses can only have a limited effect if the equipment necessary is not available. Freedom from intestinal infection depends on a high standard of cleanliness of person, clothing, house and contents as well as on the methods of handling food.

Some degree of priority is given to tuberculous families in the allocation of houses by the Factorial Committee. A special list is kept, the information being supplied to the City Factor by this Department. On 31st March of this year, there were 109 names on the list. In June, 1947, ten months earlier, the list comprised 112 names, substantially the same number. During the interval, 54 of the families were rehoused, 23 were removed from the list (death in 20 cases, 4 for other reasons) and 75 new applicants were added.

I am, Ladies and Gentlemen,

Your obedient servant,

W. L. BURGESS,
Medical Officer of Health.

LIST OF TABLES AND CHARTS

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1. Causes of Death (Corrected for Transfers), at the Different Age Periods during 1947.
 2. Death-rates at Various Age Periods (from all causes) each year, 1943-47.
 3. Death-rate (from all causes) each month during the years 1943-47.
 4. Death-rate (from all causes) in various Wards each year, 1940-47.
 5. Birth-rate in Various Wards each year, 1940-47.
 6. Infantile Death-rate (per 1,000 births) in Various Wards each year, 1940-47.
 7. Death-rate in Various Wards from Principal Epidemic Diseases each year 1940-47.
 8. Pulmonary Tuberculosis Death-rate in Various Wards each year, 1940-47.
 9. Tuberculosis (all forms) Death-rate in Various Wards each year, 1940-47.
 10. Deaths and Death-rates from Various Groups of Causes each year since 1943 (all ages).
 11. Certified causes of death at various ages under 1 year during 1947.
 12. Infant Mortality Rates from Various Groups of Causes each year, 1940-47.
 13. Infant Mortality Rates from all causes at various age periods, 1940-47.
 14. Number of Illegitimate Births, Number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births since 1940.
 15. Number of Still-births and rate per 1,000 Births, 1940-47.
 16. MATERNAL MORTALITY — Certified Causes of Deaths of Women from Disease and Accidents Connected with Pregnancy and Child-birth since 1943.
 17. Maternal Mortality Rates — Number of Deaths per 1,000 Registered Births, 1940-47.

18. Annual Death-rates per 100,000 population from Certain of the Infectious Diseases, 1940-47.
19. Case Mortality (per cent.) from Certain Infectious Diseases each year since 1940.
20. Death-rates per 100,000 each year since 1940 from Respiratory diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).
21. Deaths in which Influenza was given as a cause of death each month, January, 1943, to December, 1947.
22. Deaths in which Influenza appeared as a cause in Death Certificate, 1943-47, classified in age periods.
23. INFECTIOUS DISEASES — Number of Cases of each Disease, Notified and Accepted in Dundee during the year 1947. Also number removed and number not removed to Hospital.
24. Monthly Notifications and Intimations of Infectious Diseases, Dundee, 1947.
25. TUBERCULOSIS — Notifications and Deaths, with corresponding rates per 1,000 population at various age periods each year since 1940.
26. TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population for each year since 1940.
27. PULMONARY TUBERCULOSIS — Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1940.
28. Pulmonary Tuberculosis — Death in Institutions each year since 1943.
29. MALIGNANT DISEASES — Number of Deaths and Death-rates per 10,000 population each year since 1940.
30. Age and Sex Distribution of Deaths from Malignant Diseases during 1947, showing parts of the body affected.
31. Number of Births per 1,000 population, Illegitimate Births per 100 Registered Births and Marriages per 1,000 population, each year since 1940.
32. PORT SANITARY ADMINISTRATION — 1947.
33. VACCINATION, 1939-46.
34. Work of Health Visitors during 1947.

TABLE I.
Return Showing Causes of Death (corrected for transfers) at the Different Age Periods during 1947.

Cause of Death.	ALL AGES														85 & over
	Total	Males	Females	—1	1—5	5—10	10—15	15—25	25—35	35—45	45—55	55—65	65—75		
Typhoid Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Measles,	2	1	1	1	—	—	—	—	—	—	—	—	—	—	
Scarlet Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Whooping Cough,	3	1	2	1	—	—	—	—	—	—	—	—	—	—	
Diphtheria,	2	2	—	2	—	—	—	—	—	—	—	—	—	—	
Influenza,	7	4	3	1	—	—	—	—	—	—	1	1	3	1	
Cerebro-Spinal Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Epidemic Diseases,	8	4	4	—	1	1	—	2	1	1	1	1	—	—	
Tuberculosis of Respiratory System,	149	74	75	—	6	1	3	30	32	27	18	17	10	5	
Other Tuberculous Diseases,	20	11	9	2	5	3	1	5	—	3	1	—	—	—	
Cancer, Malignant Diseases,	328	168	160	1	—	1	—	1	2	28	48	68	95	72	
Diabetes Mellitus,	13	4	9	—	—	—	—	—	1	1	—	3	2	5	
Diseases of Nervous System,	326	123	203	9	3	—	1	3	2	10	20	37	102	109	
Diseases of Circulatory System,	762	349	413	1	1	1	1	4	6	23	44	110	239	266	
Bronchitis,	61	34	27	7	1	—	—	—	—	3	13	12	18	7	
Pneumonia (all forms),	145	83	62	50	8	—	—	—	4	4	6	17	21	24	
Other Respiratory Diseases,	40	18	22	2	—	1	—	—	2	2	10	7	7	8	
Diarrhoea, etc. (all ages),	88	52	36	81	1	—	—	—	—	—	1	2	2	1	
Appendicitis,	10	3	7	—	—	2	1	—	1	—	3	1	2	—	
Other Digestive Diseases,	86	41	45	2	1	—	—	2	8	18	15	23	15	2	
Acute and Chronic Nephritis,	41	20	21	—	—	—	1	1	1	3	4	7	17	7	
Other Diseases of Genito-Urinary System,	38	30	8	2	1	—	—	1	1	4	1	2	13	1	
Puerperal Sepsis,	1	—	1	—	—	—	—	—	—	1	—	—	—	—	
Other Puerperal Causes,	3	—	3	—	—	—	—	—	—	3	—	—	—	—	
Congenital Debility, Premature Birth, Malformations, etc.,	117	76	41	115	1	—	—	1	—	—	—	—	—	—	
Old Age,	32	9	23	—	—	—	—	—	—	—	—	1	1	12	
Violent Deaths,	115	69	46	12	6	10	6	4	4	14	12	24	16	7	
All Other Causes,	70	29	41	4	2	4	3	1	3	3	3	13	16	18	
ALL CAUSES,	2,467	1,205	1,262	291	42	12	18	54	61	122	197	328	588	692	

TABLE III.

Death-rate (from all causes) each month during the years
1943-1947.

Month.	1943.	1944.	1945.	1946.	1947.
January,	15.7	18.3	19.5	20.3	18.7
February,	18.1	13.9	15.6	16.3	19.2
March,	14.3	14.5	14.1	18.1	17.9
April,	12.9	12.7	12.6	15.6	14.0
May,	12.4	15.0	12.4	12.8	14.2
June,	14.1	12.9	11.7	13.0	12.4
July,	12.3	12.7	11.5	11.8	12.6
August,	11.3	12.3	9.5	11.7	12.8
September,	10.8	13.7	10.0	10.8	11.2
October,	12.9	13.4	10.5	10.6	11.3
November,	14.8	11.4	12.7	14.9	13.2
December,	20.7	14.8	17.3	17.8	16.9

TABLE IV.

Death-rate (from all causes) in various Wards each year,
1940-1947.

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	15.9	12.2	13.2	15.8	14.8	18.0	11.2	18.7	16.1	14.7	14.9	15.4
1941,	15.3	12.9	14.2	15.5	16.8	23.4	11.1	16.7	14.5	14.8	18.6	12.4
1942,	14.7	12.0	12.0	15.7	17.1	20.4	9.8	18.6	12.1	15.9	17.9	12.6
1943,	15.0	13.1	13.3	16.0	18.8	21.6	11.9	17.3	11.7	15.0	15.2	13.0
1944,	14.6	11.5	12.2	14.8	18.1	21.9	11.3	19.8	12.9	13.3	15.7	11.6
1945,	13.6	10.0	12.0	14.0	17.1	20.5	8.4	19.0	11.4	12.6	17.2	11.6
1946,	14.1	11.6	13.1	14.2	15.6	21.8	10.8	18.5	11.8	12.4	16.1	12.1
1947,	13.7	11.3	12.6	12.9	14.7	19.0	9.9	20.3	11.9	12.9	16.3	11.6

TABLE V.

Birth-rate in Various Wards Each Year, 1940-47.

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	16.6	15.4	12.8	21.9	20.4	20.6	11.8	14.5	13.9	14.8	12.1	17.9
1941,	17.5	16.1	13.4	19.7	24.2	24.8	14.8	18.7	13.7	14.2	14.5	18.5
1942,	17.5	16.7	16.2	21.6	22.3	22.6	13.6	19.7	14.1	14.6	16.1	16.2
1943,	16.3	15.0	12.1	21.2	23.1	21.6	10.9	19.2	11.8	15.0	14.3	15.5
1944,	18.0	19.4	18.7	23.8	27.1	29.3	14.8	24.7	15.4	18.9	18.6	17.2
1945,	16.1	16.2	12.9	20.2	21.8	24.9	10.1	19.3	11.3	14.1	14.6	13.5
1946,	22.3	22.8	16.4	27.1	31.2	32.8	16.6	26.4	18.7	21.4	30.0	20.9
1947,	25.1	19.9	16.8	29.5	31.2	32.0	19.0	22.8	20.0	18.5	22.5	21.2

TABLE VI.

**Infantile Death-rate (per 1,000 births) in Various Wards
Each Year, 1940-1947.**

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	67	72	85	71	89	60	83	66	49	56	15	66
1941,	89	48	96	106	69	85	92	85	91	111	193	82
1942,	68	59	52	87	83	68	38	71	62	56	58	82
1943,	69	60	92	63	78	74	108	39	68	81	23	68
1944,	60	52	46	64	76	73	58	34	78	58	23	70
1945,	57	33	59	51	84	45	75	69	47	93	28	27
1946,	47	51	38	67	42	46	54	26	50	41	55	47
1947,	70	81	86	77	52	59	92	57	82	103	24	58

TABLE VII.

**Death-Rate in Various Wards from Principal Epidemic Diseases
Each Year, 1940-1947.**

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	.98	.76	.36	.81	1.47	1.70	.93	.71	.84	1.17	.89	.89
1941,	.69	.83	.55	.78	1.05	.90	.38	.56	.62	.84	.60	.51
1942,	.33	.07	.56	.40	.45	.46	.52	.41	.29	.23	.41	.06
1943,	.61	.47	.29	.62	.46	1.26	.59	.42	.30	.95	.85	.53
1944,	.16	—	.1	.34	.20	.08	—	.25	.24	.18	.42	.06
1945	.05	—	—	.07	—	—	—	—	—	.16	.31	.06
1946,	.21	.18	.18	.19	.24	.29	.25	.28	.16	.22	.19	.11
1947,	.08	.23	.08	—	.17	—	—	—	.10	.15	.18	—

TABLE VIII.

**Pulmonary Tuberculosis Death-rate in Various Wards
Each Year, 1940-1947.**

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	.82	.50	.54	.45	1.22	.74	.43	.79	.67	.55	.30	.50
1941,	.65	.65	.27	.72	.99	.75	.50	.88	.62	.63	.30	.68
1942,	.77	.77	.47	.74	1.08	1.54	.58	.90	.47	.69	.93	.75
1943,	.61	.94	.39	.48	.78	.95	.53	.50	.66	.65	.42	.36
1944,	.73	.61	.58	.82	.72	1.42	.53	1.09	.78	.54	.32	.65
1945,	.68	.33	.95	.47	.97	1.40	.13	.74	.65	.58	.63	.76
1946,	.70	.55	.26	1.01	1.19	.79	.24	.61	.49	.92	.68	.70
1947	.82	1.24	.99	.65	.84	1.42	.56	1.87	.36	.81	.63	.46

TABLE IX.

**Tuberculosis (all forms) Death-rate in Various Wards
Each Year, 1940-1947.**

Year	Whole City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12.
1940,	.84	.63	.63	.58	1.53	1.11	.87	1.18	.79	.78	.40	.61
1941,	.90	.83	.83	.98	1.43	1.05	.75	1.20	.91	1.01	.30	.78
1942,	1.02	.85	.47	1.07	1.40	2.08	.77	1.07	.64	.87	1.03	1.04
1943,	.79	1.48	.39	.55	1.11	1.18	.53	.59	.78	.89	.42	.53
1944,	.88	.87	.77	.96	.85	1.60	.72	1.09	1.02	.65	.42	.65
1945,	.86	.46	1.43	.68	1.48	1.63	.19	.83	.83	.70	.63	.76
1946,	.87	.74	.35	1.07	1.37	1.01	.60	.77	.88	.98	.87	.70
1947,	.91	.92	1.32	.76	1.01	1.42	.79	2.16	.31	.81	.82	.46

TABLE X.

Deaths and Death-rates from various groups of causes each year since 1943 (all ages).

Disease Group.	1943.		1944.		1945.		1946.		1947.	
	Pop., 154,703.	No. of Deaths.	Pop., 154,845.	No. of Deaths.	Pop., 156,999.	No. of Deaths.	Pop., 169,197.	No. of Deaths.	Pop., 180,730.	No. of Deaths.
	Rate per 1,000 Pop.		Rate per 1,000 Pop.		Rate per 1,000 Pop.		Rate per 1,000 Pop.		Rate per 1,000 Pop.	
Congenital,	96	.62	101	.72	100	.64	105	.62	117	.65
Digestive,	92	.59	90	.58	104	.66	101	.60	184	1.02
Respiratory,	216	1.39	222	1.43	158	1.01	210	1.24	246	1.36
Infective,	233	1.50	195	1.26	158	1.01	198	1.17	195	1.08
Circulatory,	675	4.36	703	4.54	653	4.16	855	5.05	762	4.22
Genito-urinary,	108	.70	92	.59	105	.67	75	.44	79	.44
Malignant,	367	2.37	337	2.18	341	2.17	333	1.97	328	1.81
Nervous,	286	1.85	282	1.82	280	1.78	277	1.64	326	1.80
Other Causes,	251	1.62	235	1.52	244	1.55	227	1.34	280	1.27
	2,342	15.00	2,257	14.64	2,143	13.65	2,381	14.1	2,467	13.7

TABLE XI.

Certified Causes of Death at Various Ages under 1 Year during 1947.

Cause of Death.	WEEKS					MONTHS					
	Under 1	1 1/2	2/3	3/4	Total	Under 2	2/3	3/6	6/9	9/12	Total
Enteric Fever, .....	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever, .....	...	...	...	...	...	...	...	...	...	...	...
Smallpox, .....	...	...	...	...	...	...	...	...	...	...	...
Measles, .....	...	...	...	...	...	...	...	1	...	...	1
Scarlet Fever, .....	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough, .....	...	...	...	...	...	...	...	...	...	1	1
Diphtheria, .....	...	...	...	...	...	...	...	...	...	...	...
Infantile paralysis, ...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal meningitis, ...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis—											
Lung, .....	...	...	...	...	...	...	...	...	...	...	...
General, .....	...	...	...	...	...	...	...	...	...	...	...
Abdominal, .....	...	...	...	...	...	...	...	...	...	...	...
Brain, .....	...	...	...	...	...	...	...	...	...	...	...
Other Forms, .....	...	...	...	...	...	...	...	...	1	1	2
Influenza, .....	...	...	...	...	...	...	1	...	...	...	1
Other Infectious Diseases, ...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms), 7	2	2	1	12	5	12	15	5	1	50	
Bronchitis, .....	...	1	2	...	3	1	2	...	...	1	7
Laryngitis, .....	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory System, ...	...	...	...	1	1	...	...	...	...	1	2
Diorrhœa and Enteritis, ...	...	5	6	...	11	12	7	29	16	6	81
Other Diseases of Digestive System,	2	...	...	...	2	...	...	...	...	...	2
Meningitis (not T.B.), ...	...	...	...	...	...	...	1	1	2	...	4
Convulsions, .....	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Nervous System, .....	...	...	...	1	1	1	...	...	2	1	5
Congenital Malformations, 7	1	2	1	11	3	...	...	...	...	2	16
Congenital Debility, Icterus, Sclerema, Marasmus,	2	...	1	...	3	3	...	...	...	...	6
Premature Birth,	46	7	2	...	55	1	...	...	...	...	56
Injury at Birth,	5	...	...	...	5	...	...	1	...	...	6
Other Diseases peculiar to Early Infancy, ...	24	1	...	...	25	...	...	...	...	...	25
Suffocation, Over-laying, 1	...	...	...	...	1	3	1	1	...	...	6
Rickets, .....	...	...	...	...	...	...	...	...	...	...	...
Syphilis, .....	...	...	...	...	...	1	1	...	...	...	2
Violence,	2	2	...	...	4	2	1	3	2	...	13
All Other Causes,	2	...	...	...	2	1	1	...	2	...	6
TOTAL,	98	19	15	4	136	33	27	61	30	14	291

TABLE XII.

Infant Mortality Rates from various groups of causes
each year, 1940-1947.

Year.	Congenital.	Digestive	Respiratory.	All		Rate per 1,000.
				Infectious Disease.	Other Causes.	
1940,	32	4	17	5	9	67
1941,	45	8	21	8	7	89
1942,	36	8	12	5	7	68
1943,	31	7	16	5	10	69
1944,	33	5	14	1	7	60
1945,	26	7	10	1	13	57
1946,	22	3	11	1	10	47
1947,	28	20	14	1	7	70

TABLE XIII.

Infant Mortality Rates from all causes at various age periods
1940-1947.

Year.	Births.	DEATH-RATES			
		Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year.
1940,	2,872	25	32	44	67
1941,	2,850	38	46	60	89
1942,	2,770	23	32	38	68
1943,	2,849	21	30	41	69
1944,	3,174	18	29	35	60
1945,	2,832	25	34	37	57
1946,	3,941	20	27	35	47
1947,	4,169	24	33	47	70

TABLE XIV.

Number of Illegitimate Births, Number of Deaths (under 1 year)
of Illegitimate Infants, and Death-rate per 1,000 Illegitimate
Births since 1940.

Year.	Illegitimate Births.	Deaths of Illeg. Infants.	Rate per 1,000 Illeg. Births.
1940,	160	25	156
1941,	209	28	134
1942,	224	21	94
1943,	241	30	124
1944,	294	24	82
1945,	282	28	99
1946,	281	23	82
1947,	275	30	109

TABLE XV.

Table showing Number of Still-Births and rate per 1,000 Births,
1940-1947.

Year.	No. of Still-Births.	Total of Live Births and Still-Births.	Rate per 1,000 total Births (Live & Still).
1940,	158	3,030	52.15
1941,	128	2,978	42.98
1942,	132	2,902	45.49
1943,	110	3,022	36.40
1944,	146	3,390	43.07
1945,	90	2,922	30.80
1946,	136	4,077	33.65
1947,	108	4,277	25.25

TABLE XVI.

MATERNAL MORTALITY

Certified causes of deaths of women from diseases and accidents
connected with pregnancy and child-birth since 1943.

	1943.	1944.	1945.	1946.	1947.
Accidents of Pregnancy,	7	3	0	2	1
Puerperal Hæmorrhage,	0	3	4	0	0
Puerperal Septicæmia, including Post abortive Sepsis,	3	3	3	4	2
Toxæmia of Pregnancy, albu- minuria, convulsions,	2	2	2	1	1
Other Puerperal diseases,	0	0	1	1	0
	12	11	10	8	4

TABLE XVII.

Maternal Mortality Rates — Number of Deaths per 1,000
Registered Births, 1940-1947.

1940.	1941.	1942.	1943.	1944.	1945.	1946.	1947.
3.48	4.56	3.61	3.51	3.47	3.5	2.0	.96

Year:	Scarlet Fever.			Enteric Fever.			Diphtheria.			Measles.			Whooping Cough.		
	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.
1940,	2	1.2	0	0	—	69	41.8	6.1	10	6.1	9	5.4	17	10.4	5
1941,	1	.6	5	5	3.1	53	32.5	6.1	10	6.1	17	10.4	5	3.2	14
1942,	1	.6	1	1	.6	28	17.7	3.8	6	3.8	5	3.2	14	9.0	0
1943,	0	—	0	0	—	17	11.0	2.6	4	2.6	0	—	0	—	1
1944,	0	—	0	0	—	6	3.9	6.5	10	6.5	3	1.8	3	1.7	3
1945,	0	—	0	0	—	0	—	2.5	4	2.5	1	.64	1	.64	1
1946,	0	—	0	0	—	0	—	5.9	10	5.9	3	1.8	3	1.7	3
1947,	0	—	0	0	—	2	1.1	1.1	2	1.1	3	1.7	3	1.7	3

TABLE XIX.

Case Mortality (per cent.) from certain Infectious Diseases each year since 1940.

Year.	Scarlet Fever.			Enteric Fever.			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.

Year.	Scarlet Fever.			Enteric Fever.			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.
1940,	172	2	1.1	13	0	—	1,353	69	5.1	1,255	10	.8	607	9	1.5
1941,	428	1	.2	367	5	1.4	1,228	53	4.3	789	10	1.3	728	17	2.3
1942,	720	1	.1	3	1	33.3	903	28	3.1	1,241	6	.5	236	5	2.1
1943,	429	0	—	8	0	—	512	17	3.3	669	4	.6	518	14	2.7
1944,	223	0	—	0	0	—	415	6	1.4	1,188	10	.84	352	0	—
1945,	224	0	—	0	0	—	342	0	—	306	4	1.31	164	1	.61
1946,	425	0	—	3	0	—	269	0	—	1,671	10	.6	522	3	.57
1947,	244	0	—	5	0	—	19*	2	10.5	424*	2	.5	455*	3	.65

*Until 1947 Case Mortality was based on the numbers of Notifications. In 1947 the figure is based on the numbers of accepted cases only.

TABLE XX.

Death-rates per 100,000 each year since 1940, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).

Year.	Total Deaths.	Death-rate per 100,000.
1940,	337	204.1
1941,	269	165.0
1942,	199	125.6
1943,	216	139.6
1944,	222	143.4
1945,	158	100.6
1946,	210	124.1
1947,	246	136.1

TABLE XXI.

Deaths in which Influenza was given as a cause of death each month, January, 1943, to December, 1947.

Months.	1943.	1944.	1945.	1946.	1947.
January,	2	2	0	10	1
February,	5	0	2	8	1
March,	2	1	0	1	0
April,	3	0	0	0	0
May,	2	1	1	0	1
June,	2	0	0	0	0
July,	1	0	0	0	0
August,	0	0	0	0	0
September,	1	0	0	0	0
October,	0	0	0	0	0
November,	9	0	0	1	0
December,	26	2	0	0	4
	53	6	3	20	7

TABLE XXII.

Deaths in which Influenza appeared as a cause in death certificate, 1943-47, classified in age periods.

Age Periods.	1943.	1944.	1945.	1946.	1947.
Under 1 year, ...	1	0	0	0	1
1—5 years,	0	0	0	1	0
5—15 years,	1	0	0	1	0
15—25 years,	1	0	0	0	0
25—45 years,	6	0	0	3	0
45—65 years,	15	2	0	4	1
65 and upwards, ..	29	4	3	11	5
	53	6	3	20	7

TABLE XXIII.

INFECTIOUS DISEASES.—Number of Cases of each disease notified and accepted in Dundee during the year 1947.
Also number removed and number not removed to Hospital.

		1.—All Ages.	2.—Under 1 year.	3.—1 and under 5.	4.—5 and under 15.	5.—15 and under 25.	6.—25 and under 35.	7.—35 and under 45.	8.—45 and under 65.	9.—65 and over.	10.—Cases removed to Hospital.	11.—Cases not removed to Hospital.
Cerebro-Spinal Fever,	M	7	0	2	4	1	0	0	0	0	7	0
Chickenpox,	F	5	1	0	1	3	0	0	0	0	5	0
Cholera,	F	426	4	56	443	3	0	0	0	0	23	483
	M	0	14	66	343	3	0	0	0	0	13	413
Continued Fever,	M	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0
Diphtheria,	M	0	0	0	0	0	0	0	0	0	0	0
	F	12	0	5	6	1	0	0	0	0	0	0
Dysentery,	M	7	0	2	3	2	0	0	0	0	11	1
	F	23	3	10	5	2	1	1	0	1	7	0
Encephalitis Lethargica, ...	M	21	2	6	4	1	2	1	4	1	22	1
	F	0	0	0	0	0	0	0	0	0	12	9
Erysipelas,	M	0	0	0	0	0	0	0	0	0	0	0
	F	56	0	0	3	3	4	7	28	11	44	12
Jaundice, Acute Infective, ...	M	93	2	1	7	2	7	16	46	12	60	33
	F	0	0	0	0	0	0	0	0	0	0	0
Malaria,	M	4	0	0	0	1	1	1	1	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	4
Measles,	M	210	17	119	70	4	0	0	0	0	0	0
	F	214	41	91	74	7	1	0	0	0	62	148
Ophthalmia Neonatorum, ...	M	84	0	0	0	0	0	0	0	0	72	142
	F	65	0	0	0	0	0	0	0	0	12	72
Pneumonia, Acute Influenzal,	M	15	1	2	1	2	2	2	5	0	11	54
	F	6	0	0	1	0	0	0	3	2	4	11
Pneumonia, Acute Primary,	M	250	30	73	37	20	20	10	42	18	134	5
	F	184	26	44	23	15	13	17	24	22	86	116
Pneumonia (not otherwise notifiable,	M	3	1	0	0	1	0	0	0	1	0	3
	F	2	1	0	0	0	0	0	0	1	0	2
Polioomyelitis, Acute,	M	19	0	12	4	2	0	0	0	1	0	0
	F	14	0	4	5	3	1	1	0	0	19	0
Puerperal Fever,	M	0	0	0	0	0	0	0	0	0	14	0
	F	3	0	0	0	1	2	0	0	0	0	0
Puerperal Pyrexia,	M	0	0	0	0	0	0	0	0	0	3	0
	F	42	0	0	0	15	27	0	0	0	0	0
Scarlet Fever,	M	124	1	57	64	2	0	0	0	0	40	2
	F	120	1	32	74	11	1	0	0	0	84	40
Smallpox,	M	0	0	0	0	0	0	0	0	0	96	24
	F	0	0	0	0	0	0	0	0	0	0	0
Typhoid Fever,	M	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0
Para-Typhoid A,	M	0	0	0	0	0	0	0	0	0	0	0
	F	0	0	0	0	0	0	0	0	0	0	0
Para-Typhoid B,	M	4	0	0	2	1	0	0	0	0	0	0
	F	1	0	1	0	0	0	0	1	0	4	0
Typhus Fever,	M	0	0	0	0	0	0	0	0	0	1	0
	F	0	0	0	0	0	0	0	0	0	0	0
Whooping Cough,	M	214	24	54	136	0	0	0	0	0	0	0
	F	241	19	50	172	0	0	0	0	0	60	154
German Measles,	M	6	0	1	5	0	0	0	0	0	75	166
	F	12	1	4	7	0	0	0	0	0	2	4
Gastro-Enteritis,	M	126	98	28	0	0	0	0	0	0	1	11
	F	103	73	30	0	0	0	0	0	0	101	25
Mumps,	M	445	1	51	393	0	0	0	0	0	92	11
	F	410	1	45	364	0	0	0	0	0	5	440
TOTALS,	M	2,108	264	470	1,173	43	28	22	77	31	594	1,514
	F	1,969	247	376	1,078	63	54	35	78	38	589	1,380

TABLE XXIV.
Monthly Notifications and Intimations of Infectious Diseases, Dundee, 1947.

DISEASE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Cerebro-Spinal Fever,	1	—	4	2	2	2	1	4	5	2	2	5	30
Chickenpox*,	60	48	64	115	140	200	36	23	22	69	98	71	946
Continued Fever (Undulant), ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria,	18	12	12	12	5	10	9	12	12	20	23	19	164
Dysentery,	6	5	10	4	10	19	18	6	17	24	11	9	139
Erysipelas,	25	25	17	11	10	8	4	6	13	14	9	19	161
Malaria,	1	—	1	—	—	—	—	2	—	—	—	1	5
Measles (Morbelli)*,	187	91	71	24	9	6	2	5	1	6	6	1	403
Measles (Rubella)*,	1	2	4	2	3	4	—	—	—	1	3	3	23
Ophthalmia Neonatorum,	16	10	19	17	12	9	17	11	13	10	7	7	148
Pneumonia (Acute Influenzal), ...	5	3	3	1	1	—	—	—	—	—	—	3	16
Pneumonia (Acute Primary), ...	78	26	39	33	25	22	16	17	27	32	56	73	444
Polioomyelitis, Acute,	—	—	1	—	—	—	1	11	19	7	1	—	39
Puerperal Fever,	—	—	1	—	1	—	—	—	—	1	—	—	3
Scarlet Fever,	8	2	4	26	5	3	1	2	1	1	1	1	55
Paratyphoid B,	44	35	29	24	21	9	9	22	13	34	27	33	300
Whooping Cough*,	1	—	—	—	1	1	1	—	—	2	—	—	6
Typhoid Fever,	33	22	30	45	48	56	25	29	29	84	51	30	482
Gastro-Enteritis*,	—	—	—	—	—	—	—	—	—	—	—	1	1
Mumps*,	3	3	—	7	19	21	28	40	43	20	22	159	365
	1	4	—	2	3	26	3	8	39	101	211	499	897
TOTALS,	488	288	308	325	315	396	171	198	254	428	528	934	4,633

*Not Notifiable during 1947.



TABLE XXVI.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population for each year since 1940.

Year.	NOTIFICATION AND CASE RATE				DEATHS AND DEATH-RATES									
	Estimated Population.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (all forms).	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis (all forms).							
		No. per 1,000.	No. per 1,000.	No. per 1,000.	No. per 1,000.	No. per 1,000.	No. per 1,000.							
1940,	165,074	201	1.21	83	.50	284	1.71	103	.62	38	.23	141	.85
1941,	163,000	238	1.46	100	.61	338	2.07	106	.65	40	.25	146	.90
1942,	158,500	236	1.49	171	1.08	307	2.57	122	.77	40	.25	162	1.02
1943,	154,703	227	1.47	89	.57	316	2.04	95	.61	27	.18	122	.79
1944,	154,845	248	1.61	57	.37	305	1.97	113	.73	23	.15	136	.88
1945,	156,999	274	1.75	77	.50	351	2.24	106	.68	29	.18	135	.86
1946,	169,197	270	1.60	51	.30	321	1.90	118	.70	29	.17	147	.87
1947,	180,730	359	1.98	77	.43	436	2.41	149	.82	20	.12	169	.94

TABLE XXV.

TUBERCULOSIS—Notifications and Deaths, with corresponding rates per 1,000 population at various age periods each year since 1940.

Year.	PULMONARY TUBERCULOSIS										NON-PULMONARY TUBERCULOSIS.														
	0--5		5--15		15--25		25--45		45--65		65 & over.		0--5		5--15		15--25		25--45		45--65		65 & over.		
	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	
1940	Notifications,	2	1.30	19	6.20	65	3.00	84	1.80	25	.67	6	.45	15	.98	27	.88	22	1.01	16	.31	1	.03	2	.15
	Deaths, ..	0	.0	2	.06	21	.96	41	.98	21	.57	12	.90	10	.65	5	.16	11	.50	6	.12	2	.05	2	.15
1941	Notifications,	5	.40	20	.86	67	2.81	95	2.01	44	1.12	7	.41	28	2.25	31	1.34	22	.92	9	.19	8	.20	2	.12
	Deaths, ..	1	.08	2	.09	25	1.05	47	.99	23	.71	3	.18	11	.88	5	.22	11	.46	9	.19	3	.08	1	.06
1942	Notifications,	11	.91	22	.98	69	3.00	82	1.76	44	1.15	8	.40	42	3.48	69	3.06	26	1.15	23	.49	10	.26	1	.06
	Deaths, ..	1	.08	1	.04	33	1.46	41	.88	35	.94	10	.61	17	1.41	9	.40	4	.18	6	.13	4	.10	0	.0
1943	Notifications,	3	.21	22	.79	69	3.74	86	2.10	43	1.15	4	.25	21	1.50	40	1.43	15	.81	8	.20	3	.08	2	.12
	Deaths, ..	2	.14	0	.0	21	1.14	33	.81	38	1.02	1	.06	11	.79	8	.29	3	.16	2	.05	2	.05	1	.06
1944	Notifications,	6	.43	25	.89	93	5.03	78	1.91	37	.99	9	.50	14	1.00	24	.85	12	.65	5	.12	1	.03	1	.06
	Deaths, ..	1	1.07	1	.04	24	1.30	43	1.05	38	1.02	6	.37	3	.21	6	.21	6	.33	3	.07	4	.12	1	.06
1945	Notifications,	6	.29	103			101		30		5		12		29		18		12		3		0		
	Deaths, ..	2	.3	27			45		23		6		11		7		7		2		2		0		
1946	Notifications,	0	.43	15	.54	92	4.03	112	2.19	36	.95	9	.57	17	1.22	16	.88	9	.39	4	.08	3	.08	2	.18
	Deaths, ..	4	.20	3	.11	25	1.10	51	1.00	20	.77	0	.38	8	.68	13	.47	4	.18	1	.02	2	.06	1	.06
1947	Notifications,	30	2.02	29	.98	107	4.37	122	2.23	57	1.41	14	.83	15	1.01	29	.98	18	.73	7	.13	7	.17	1	.06
	Deaths, ..	6	.41	4	.16	30	1.22	50	1.08	35	.87	15	.88	7	.47	4	.16	5	.21			4	.09	—	—

TABLE XXVII.

PULMONARY TUBERCULOSIS.—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1940.

Year.	NOTIFICATIONS.				DEATHS.			
	Males.		Females.		Males.		Females.	
	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.	No.	Per 1,000.
1940.	92	1.35	109	1.02	51	.75	51	.53
1941,	126	1.72	112	1.25	53	.72	53	.59
1942,	119	1.43	117	1.14	62	.74	60	.59
1943,	124	1.79	103	1.21	49	.71	46	.54
1944,	112	1.61	136	1.57	54	.82	59	.69
1945,	153	2.17	121	1.40	57	.81	49	.57
1946,	146	—	124	—	54	—	64	—
1947,	194	—	165	—	74	—	75	—

TABLE XXVIII.

Pulmonary Tuberculosis—Deaths in Institutions
each year since 1943.

	1943.	1944.	1945.	1946.	1947.
Total Deaths from Pulmonary Tuberculosis,	95	113	106	118	149
No. of Deaths from Pulmonary Tuberculosis in Institutions, ...	54	79	52	44	78
Percentage of Total Deaths from Pulmonary Tuberculosis dying in Institutions,	56.8	69.9	49.1	37.3	52.3

TABLE XXIX.

MALIGNANT DISEASES

Number of Deaths and Death-rates per 10,000 population
each year since 1940.

Year	Males.	Females.	Total.	Rates.
1940,	135	162	297	17.99
1941,	122	178	300	18.40
1942,	141	181	322	20.32
1943,	162	205	367	23.72
1944,	159	178	337	21.76
1945,	159	182	341	21.72
1946,	145	188	333	19.68
1947,	168	160	328	18.15

TABLE

Age and Sex Distribution of Deaths from Malignant

MALES

LOCATION				All Ages	0-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85	85 & over					
All Sites				168	1	1	...	1	5	12	10	16	17	19	26	23	24	8	5
Lip ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mouth, Palate ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tongue				2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Jaw, Maxilla, Antrum				1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Salivary Glands, Parotid				1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Tonsils ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pharynx, Fauces ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasopharynx, Nose-internal ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cheek ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Buccal Cavity, etc.		Total		4	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...
Oesophagus, Gullet				10	...	...	...	...	...	2	2	...	1	2	1	2	...	...	...
Stomach, Pylorus				32	...	...	...	...	2	2	4	4	5	4	4	6	1	...	...
Intestine				23	...	...	...	...	...	1	...	1	1	2	6	6	3	3	...
Abdomen				1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Rectum				18	...	...	...	...	1	1	3	2	4	3	2	2	...	...	...
Liver, Gall Bladder				8	...	...	...	...	1	...	1	2	2	1	...	...	...	...	...
Pancreas				3	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...
Peritoneum, Omentum, Mesentery				1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Digestive Organs, etc.		Total		96	...	...	...	...	1	3	6	8	10	11	15	16	17	6	3
Larynx				5	...	...	...	...	...	...	...	1	1	2	1	...	...	...	...
Lung, Bronchus, Pleura				28	...	...	1	2	8	1	6	4	1	4	...	...	1	...	...
Mediastinum				1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Respiratory Organs.		Total		34	...	...	1	2	8	1	7	5	2	6	1	...	1	...	...
Breast ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prostate				10	...	...	...	...	1	...	...	...	2	2	2	...	1	2	...
Testis				1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Penis ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scrotum				1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Male Genital Organs		Total		12	...	...	...	...	2	...	...	...	2	3	2	...	1	2	...
Kidney				3	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...
Bladder, Urethra				6	...	...	...	...	...	1	...	...	1	1	...	3	...	...	...
Urinary Organs		Total		9	...	...	...	...	...	1	...	...	2	1	1	4	...	...	...
Anus ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ear ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nose (external) ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scalp, Face (rodent ulcer)				2	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
Skin				2	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Skin		Total		4	...	1	...	...	...	...	1	...	...	...	2	...	...	...	...
Brain				1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Spinal Cord ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brain and Nervous System		Total		1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Adrenals				2	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Arm, Leg				1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Bones				1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Eye ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lymphatic Glands ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pelvis				1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Rib, Sternum ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Spine				2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Spleen ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thorax ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Throat ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thyroid ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Others ... ..				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not Stated				1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Other or Unspecified Organs		Total		8	1	...	...	...	1	1	...	2	2	...	...	1	...	...	...

Diseases during 1947, showing parts of the body affected.

FEMALES

LOCATION	All Ages	0-5	5-15	15-25	25-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85 & over
All Sites	160	...	...	1	1	6	5	9	13	16	16	15	31	27	13	7
Lip	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mouth, Palate	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tongue	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jaw, Maxilla, Antrum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Salivary Glands, Parotid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonsils	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pharynx, Fauces	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasopharynx, Nose—Internal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cheek	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Buccal Cavity, Etc. Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oesophagus, Gullet	7	...	...	...	...	...	...	...	...	1	...	...	2	1	2	1
Stomach, Pylorus	36	...	...	1	1	1	1	1	3	5	2	11	4	3	3	3
Intestine	22	...	...	...	...	1	1	3	2	2	2	2	4	3	2	2
Abdomen	4	...	...	...	1	...	...	...	1	...	2	...	...	...	...	...
Rectum	4	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...
Liver, Gall Bladder	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Pancreas	4	...	...	...	...	...	...	...	...	2	...	1	...	1	...	...
Peritoneum, Omentum, Mesentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Digestive Organs, etc. Total	78	...	...	1	2	3	3	4	7	9	7	16	10	10	6	6
Larynx	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Lung, Bronchus, Pleura	10	...	...	...	...	...	1	2	...	1	1	3	2	...	...	...
Mediastinum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Respiratory Organs. Total	11	...	...	...	...	...	1	2	1	1	1	3	2	...	...	...
Cervix	4	...	...	...	...	...	...	...	2	...	...	1	...	1	...	...
Uterus, Other or Unspecified	11	...	...	...	1	...	...	1	1	...	2	2	3	1	...	...
Uterus. Total	15	...	...	...	1	...	...	3	1	...	2	3	3	2	...	...
Ovary, Fallopian Tube	4	...	1	...	1	...	1	...	...	...	1	...	...	...	...	...
Vagina, Vulva	3	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...
Other Female Genital Organs. Total	7	...	1	...	2	1	1	...	...	...	1	...	1	...	...	...
Breast	24	...	...	...	1	...	3	4	4	1	1	5	4	...	1	...
Kidney	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bladder, Urethra	9	...	...	...	...	...	...	...	2	1	...	1	4	1	...	...
Urinary Organs. Total	9	...	...	...	...	...	...	...	2	1	...	1	4	1	...	...
Anus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ear	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nose (external)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scalp, face (rodent ulcer)	2	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...
Skin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Total	2	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...
Brain	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Spinal Cord	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brain and Nervous System Total	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Adrenals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arm, Leg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bones	4	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...
Eye	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lymphatic Glands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pelvis	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Rib, Sternum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Spine	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thorax	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Throat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thyroid	3	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...
Others	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not Stated	3	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...
Other or Unspecified Organs. Total	13	...	...	...	...	1	...	...	1	3	3	2	3	...	...	...

TABLE XXXI.

Number of Births per 1,000 population, Illegitimate Births per 100 Registered Births, and Marriages per 1,000 population, each year since 1940.

Year.	Birth-rate.	Illegitimate-rate.	Marriage-rate.
1940,	16.6	5.7	12.7
1941,	16.3	7.3	9.5
1942,	15.9	8.1	9.2
1943,	16.3	8.5	8.2
1944,	18.0	9.3	8.1
1945,	16.1	10.0	10.7
1946,	22.3	7.1	10.5
1947,	23.1	6.6	10.0

TABLE XXXII.

PORT SANITARY ADMINISTRATION — 1947.

The foreign vessels arriving at this Port during the year show a slight increase in numbers and tonnage, and, in the case of coasting ships, an increase in numbers but a decrease in tonnage.

Volume of Shipping Entering the Port in 1947.

	Number.	Tonnage.
(1) Foreign,	132	240,687
(2) Coastwise,	474	125,894

Vermin Infestation.

During the routine inspections that all foreign-going vessels coming to the Port undergo, a careful scrutiny was given to the crews' quarters to ascertain the presence of fleas, lice or bugs; no traces were found. On two occasions ships were cleared of cockroaches while they were undergoing fumigation by H.C.N. for the renewal of their Deratization Certificate.

Deratization.

Details of Deratization are given in tabulated form at the end of this report.

The Parrots (Prohibition of Import) Regulations (Scotland), 1930.

There was no occasion demanding action under the above Regulations.

During the year the work at the Port was carried out on normal lines. Nothing of an unusual nature occurred.

Total number of verbal intimations,	132
Total number of rat notices issued,	Nil
Number of visits to ships,	235
Number of ships from infected ports (direct),	6
Number of ships from infected ports (indirect),	40
Number of ships from free ports (direct),	79
Number of ships from free ports (indirect),	7
Total number of ships from Foreign Ports,	132
Nuisances and defects attended to,	92
Forecastles cleaned,	16
Messrooms cleaned,	14
Galleys and Storerooms cleaned,	8
Choked or defective water closets,	17
Dirty water-closets,	12
Discharge of foul water on quay,	7
Leaking forecastles,	10
Crews' bedding laundered,	5
Excessive smoke emission,	3

In addition the following work was carried out while the vessels were in Port:—

Freshwater tanks cleaned out,	23
Forecastles washed or painted (walls),	17
Bathrooms or wash places painted,	12
Crews' messrooms washed or painted,	10
Water closets painted,	10
Bilges emptied,	25

"A"

Number of vessels subjected to measures of rat destruction,	3
On Ships—Number of dead rats recovered,	37
Number of rats examined bacteriologically,	Nil
On Shore—Number of rats destroyed (other than on ships),	310
Number of rats examined bacteriologically,	Nil
Species of rats recovered—On ships, 30 Black, 7 Brown and Grey.	
On shore, 190 Black, 120 Brown & Grey.	

"B"

Number of vessels fumigated by S.O.2,	Nil
Number of vessels fumigated by H.C.N.,	3
Number of dead rats recovered,	37
Number of vessels in which poisoning, etc., was employed,	Nil
Number of dead rats recovered,	Nil
Deratization Certificates issued,	3
Deratization Exemption Certificates issued,	25

TABLE XXXIII.

VACCINATION, 1939-46.

Year.	Total Births (excluding Tran- scripts received)	Successfully Vaccinated.		Insusceptible to Vaccination.		Died before Vaccination.		Conscientious Objectors.		Postponements or Unaccounted for	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
1939,	3,042	788	25.9	21	.7	189	6.2	1,954	64.2	90	3.0
1940,	3,046	853	28.0	34	1.1	161	5.3	1,944	63.8	54	1.8
1941,	3,105	1,072	34.5	19	.6	227	7.3	1,705	54.9	82	2.6
1942,	3,104	1,393	44.9	24	.8	161	5.2	1,437	46.3	89	2.9
1943,	3,248	1,425	44.0	33	1.0	165	5.1	1,525	46.9	100	3.0
1944,	3,549	1,574	44.4	44	1.2	160	4.5	1,661	46.8	110	3.1
1945,	3,240	1,459	45.0	65	2.0	159	4.9	1,428	44.1	129	4.0
1946,	4,464	2,026	45.4	77	1.7	205	4.6	1,988	44.5	168	3.8

TABLE XXXIV.

WORK OF HEALTH VISITORS DURING 1947.

Visits to Individuals in Their Own Homes—

Under 1 year—

First Visits,	6,008
Revisits,	23,178

Age 1—5 years—

First Visits,	2,893
Revisits,	16,801

Age 5—15 years—

First Visits,	2,995
Revisits,	950

Over 15 years—

First Visits,	5,640
Revisits,	6,468

Total Visits,	<u>65,933</u>
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Actual Number of Houses Visited—

First Visits,	16,680
Revisits,	37,834
Houses found shut,	9,625

Total Visits,	<u>64,139</u>
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Number of Visits to Schools—

Sessions (i.e., half-days for routine inspection),	415
Other visits (each lasting from a few minutes to two hours),	1,434

Clinic and Nursery Duty — (Infant Welfare, school Treatment, T.B., V.D., U.V.R., Ante-natal, Day Nursery Children, Diphtheria Immunisation, Vaccination, Specialist Clinics)—Year 1947.

Sessions (each lasting from 1—3 hours),	4,565
Sessions by Health Visitors (8) engaged wholly on clinic duty,	4,224

8,789

KING'S CROSS HOSPITAL

Report by Dr WILLIAM M. JAMIESON

Details of admissions, discharges and deaths during 1947 in terms of the pre-admission diagnosis are set out in Table I.

TABLE I.

Disease.	Cases in Hospital, 31-12-46.	Admitted during 1947.	Discharged during 1947.	Died during 1947.	Remaining in Hospital 31-12-47.
Diphtheria (including Croup),	12	197	196	5	6
Scarlet Fever,	26	248	251	2	21
Erysipelas,	3	116	114	2	3
Puerperal Pyrexia,	2	43	44	0	1
Post-abortion Pyrexia,	1	12	13	0	0
Enteric Fever,	1	9	8	1	1
Bacillary Dysentery,	10	130	132	2	6
Gastro-enteritis,	0	269	208	42	18
Tuberculosis (pulmonary),	12	45	29	2	26
Tuberculosis (non-pulmonary),	12	13	9	1	15
Primary Pneumonia,	14	125	126	2	11
Influenzal Pneumonia,	0	1	1	0	0
Bronchitis,	0	44	42	0	2
Measles,	44	134	173	5	0
Rubella,	1	3	4	0	0
Whooping Cough,	7	86	82	5	6
Whooping Cough and Measles,	2	1	3	0	0
Whooping Cough and Chickenpox, ...	0	1	1	0	0
Chickenpox,	1	36	36	0	1
Chickenpox and Scarlet Fever,	0	1	1	0	0
Herpes Zoster,	0	2	2	0	0
Anterior Poliomyelitis,	0	62	54	6	2
Meningitis,	0	32	25	3	4
Mumps,	0	5	5	0	0
Glandular Fever,	0	1	1	0	0
Ophthalmia Neonatorum,	0	12	10	1	1
Conjunctivitis,	1	0	1	0	0
Pyrexia of Unknown Origin,	0	13	12	0	1
Malaria,	0	1	1	0	0
Infective Hepatitis,	0	1	1	0	0
Vincent's Angina,	0	1	1	0	0
Pyelitis (paratyphoid carrier),	0	1	1	0	0
Pemphigus,	0	2	2	0	0
Scabies,	0	1	1	0	0
Healthy Baby,	0	2	2	0	0
Total,	149	1,650	1,593	79	127

Average daily number of patients, ... 101.3

Highest daily number of patients, ... 150 on 2-11-47

Lowest daily number of patients, ... 62 on 16-7-47

Total number of patient days, 36,942

There were 79 deaths during the year, giving a hospital mortality rate of 4.7 per cent. This comparatively high figure was largely due to an outbreak of gastro-enteritis in infants, for if these cases be excluded the rate becomes 2.6 per cent.

Diphtheria.

201 cases admitted as diphtheria were discharged during the year, but the diagnosis was confirmed in only 21. In addition, one case admitted as pyrexia of unknown origin proved to be diphtheria, thus making a total of 22 confirmed cases.

The diagnosis in the 180 non-accepted cases was as follows:—

Tonsillitis,	121
Peritonsillar Infection,	10 (1 died)
Simple Croup,	24
Bronchitis,	5
Primary Pneumonia,	4 (1 died)
Scarlet Fever,	3
Miscellaneous,	13 (1 died)
	<hr/>
	180 (3 died)
	<hr/>

Details in respect of the 22 accepted cases are set out in Table II.

TABLE II.

Showing classification, result and infecting organism in 22 cases of diphtheria:—

Classification.	No. of Cases.			Type of C. Diphtheriae.						
	Recovered.	Died.	Total.	Mitis.	Intermedius.	Gravis	Atypical.	Not Recovered.	Total.	
Ant. Nasal,	1	0	1	0	1	0	0	0	1	
Faucial — mild,	3	0	3	0	0	1	0	2	3	
Faucial — moderate,	13	0	13	1	2	3	2	5	13	
Nasopharyngeal, ...	3	0	3	0	1	0	0	2	3	
Laryngeal,	0	2	2	0	0	1	0	1	2	
All Types	20	2	22	1	4	5	2	10	22	

In exactly half of the cases a history of previous immunisation was obtained.

TABLE III.

The age distribution and immunisation state of the accepted cases:—

Age in Years.	Immunised.	Not Immunised.	Total.
0—4,	4	5	9
5—14,	7	1	8
Over 15,	0	5	5
All ages,	11	11	22

Complications were present in only 2 cases, a transient mild myocarditis in one and paralysis of the ciliary muscle of accommodation in the other. There were 2 deaths during the year, both obstructive from the laryngeal form of the disease. Neither child had been immunised. These are the first deaths from diphtheria in the city for three and a half years—probably the longest period of freedom from diphtheria mortality ever enjoyed by any comparable community throughout the country. Equally striking has been the fall in the incidence of the disease. This year's figure of 22 confirmed cases is the lowest ever recorded in Dundee. The total number of confirmed cases admitted to hospital each year since 1937 is shown below:—

1937,	184	} Epidemic
1938,	267	
1939,	263	
1940,	860	
1941,	902	
1942,	659	}
1943,	251	
1944,	216	
1945,	115	
1946,	70	
1947,	22	

In the light of such evidence it is difficult to avoid the conclusion that the benefits of the diphtheria immunisation campaign are now being realised. It seems also to indicate that a little more effort might wipe out diphtheria as an endemic malady in this country in much the same way as smallpox disappeared some years ago. As far as treatment is concerned, antitoxin given at the earliest possible moment still remains the mainstay. Recent work has suggested that penicillin may be a useful adjuvant in especially severe cases and in those where secondary infection is a prominent feature.

Scarlet Fever.

There were 243 cases discharged during the year in which the admission diagnosis was scarlet fever. The diagnosis was confirmed in 196, and to this number must be added 6 cases admitted as other conditions, thus making the total number of confirmed cases 202.

All of these were of the ordinary type, except 7 which were of the surgical variety. The disease, *per se*, continues to be comparatively mild, and the chief interest lies in the occurrence of complications, not because of their severity, but because of the consequent prolongation of the patient's stay in hospital and the liability, if discharged to infect others. One or more complications were present in 75 cases (37 per cent.). The actual details are listed below.

Cervical Adenitis,	34
Abscess, Neck,	3
Rhinitis,	23
Otitis Media,	14
Scarlatinal Rheumatism,	4
Tonsillitis,	6
Albuminuria,	1
Acute Nephritis,	1
Toxic Rash,	2
Conjunctivitis,	1
Primary Tuberculous Complex,	3
Relapse,	3
	<hr/>
	95
	<hr/>

Complications arise in scarlet fever in two ways. Firstly, the patient may suffer from a complication caused by his own infecting organism, or, on the other hand, he may be the victim of a cross-infection with a different strain of streptococcus from another case in the ward. The complication rate among hospitalised scarlet fever cases varies with the number of patients in any given ward. The effect of the initial form of treatment on the complication rate was studied in 130 cases. No attempt was made to equalise certain relevant factors (e.g., number of patients per ward, severity of disease, etc.), but the cases were unselected and the various treatments were given more or less in rotation to all cases diagnosed as scarlet fever. The results obtained are shown in Table IV.

TABLE IV.

Showing the effect on the complication rate and stay in hospital of various forms of therapy in scarlet fever:—

Form of Treatment.	No. Treated.	No. Complicated.	Complication Rate Per Cent.	Average Dura- tion stay in Hosp. in Days.
Nil Special,	31	22	71.0	31.9
Sulphonamide, ...	20	14	70.0	35.2
Penicillin,	18	9	50.0	34.7
Scarlet Fever				
Anti-toxin, ...	27	11	40.7	27.5
All Forms,	96	56	58.3	31.6

The numbers in each treatment group are small and have not been subjected to statistical analysis. It is surprising, however, to find that the lowest complication rate was obtained with the use of anti-toxin, since the complications met with were entirely of a bacterial as distinct from a toxic nature. Practically all the complications were secondary cervical adenitis, rhinitis and otitis media. One other point noted was that, whereas the administration of anti-toxin almost invariably caused a sudden fall in the temperature to normal, treatment initially with sulphonamide and more especially with penicillin tended to prolong the pyrexia beyond the normal time of lysis in the untreated case.

There was no mortality from the disease. The deaths attributed to scarlet fever in Table I. were in wrongly diagnosed cases, the amended diagnoses being thrombocytopenic purpura and empyema of the gall bladder with septicæmia.

Erysipelas.

The diagnosis was confirmed in 104 out of 116 cases of erysipelas discharged during the year. The face was the site of the lesion in 95 patients, the lower limbs in 9. There were 2 deaths, giving a case mortality rate of 1.9 per cent. It is rather surprising to find that although puerperal infection has declined in incidence and severity and scarlet fever certainly in severity, no such effect has been observed in erysipelas. It is true that the disease is now much more amenable to therapy, but the severity of the initial lesion has remained unchanged, and the impression is that the incidence of the disease, as judged by those requiring hospital treatment, is as high as ever it was and may even be increasing. Recurrence of symptoms developed in a number of patients in spite of apparently complete initial clearance of the lesion with a full course of sulphonamide therapy. One boy had no fewer than five attacks within

a period of two months. It would seem that some allergic factor must have been present in this instance.

Puerperal Fever.

In 44 cases of puerperal pyrexia discharged during the year, the ultimate diagnosis was an infective condition related to pregnancy in 31 and unrelated or non-infective in 13. The diagnosis in the latter was as follows:—

Engorged breasts,	3
Upper respiratory tract infection,	3
Primary pneumonia,	1
Pleurodynia,	1
Post-partum hæmorrhage,	1
Anæmia,	1
Toxic rash,	1
No disease,	2
	<hr/>
	13
	<hr/>

Details of 31 Accepted Cases.

Place of Confinement.		Number of Pregnancies.	
Home in Dundee,	9	Para 1	16
Home outwith Dundee, ...	3	„ 2	7
Institution in Dundee,	18	„ 3	2
Institution outwith Dundee, ..	1	„ 4	2
		„ 5+	4
Type of Labour.		Marital State.	
Normal,	16	Married	29
Perineal tears,	6	Unmarried	2
Instrumental,	6		
Breech delivery,	1		
Prematurity,	2		

Clinical Classification.

Infected perineum vagina or cervix,	1
Endometritis,	20
Peritonitis,	1
Urinary tract infection,	2
Thrombophlebitis,	1
Mammary infection,	6

Complications were present in 10 cases as follows:—

Pelvic cellulitis,	4
Thrombophlebitis,	3
Pulmonary embolism,	1
Mammary abscess,	1
Pyelitis,	1
Post-partum hæmorrhage,	1
Depressive psychosis,	2

Post-Abortum Fever.

Of 13 cases admitted with the diagnosis of post-abortum pyrexia and discharged during the year, infection was confirmed in 10. The cases not accepted were suffering from incomplete abortion (2) and anæmia. In the 10 accepted cases, dilation and curettage had been carried out in Dundee Royal Infirmary in five patients, was performed in King's Cross Hospital in a further two and was not necessary in the remaining three. All cases, except one, were mild and all made a complete recovery.

Measles.

Measles, or measles with intercurrent infection, was the admission diagnosis in 181 cases discharged during the year. The diagnosis was confirmed in 167. To this number must be added 12 cases admitted as other diseases, so that the total number of confirmed cases was 179.

The diagnosis in the non-accepted cases was as follows:—

Toxic rash,	5
Upper respiratory tract infection,	2
Whooping cough,	1
Rubella,	1
Scarlet fever,	1
Skin conditions,	2
No disease,	2
	—
	14
	<u>14</u>

One or more complications were present in 61 (34 per cent.) of the 179 accepted cases as follows:—

Bronchopneumonia,	32	(17.9 per cent.)
Bronchitis,	8	(4.5 per cent.)
Empyema,	1	(0.6 per cent.)
Otitis media,	17	(9.5 per cent.)
Enteritis,	5	(2.8 per cent.)
Primary tuberculous complex,	2	(1.1 per cent.)
Miliary tuberculosis,	2	(1.1 per cent.)
Stomatitis,	2	(1.1 per cent.)

Five cases died, giving a fatality rate of 2.8 per cent. This figure is in keeping with the lower mortality of recent years, and is probably a direct effect of the use of sulphonamide drugs and

penicillin in dealing with the complications, particularly bronchopneumonia. In the pre-sulphonamide era the hospital case mortality rate for measles was fairly constantly between 8 and 12 per cent. The following figures show the downward trend:—

Year.	Case mortality per cent.
1927,	8.0
1934,	11.2
1936,	8.1
1938,	11.8
1941,	4.6
1942,	5.0
1943,	2.9
1944,	3.1
1945,	0.0
1946,	2.4
1947,	2.8

Whooping Cough.

Of 91 cases admitted as whooping cough or whooping cough with intercurrent infection and discharged during the year, the diagnosis was confirmed in 71.

One or more complications were present in 34 (47.9 per cent.) of these as follows:—

Bronchopneumonia,	16
Bronchitis,	18
Pleural effusion,	1
Primary tuberculous complex,	1
Umbilical hernia,	1
Debility,	2

The high complication rate was no more than a measure of the selection of cases admitted for hospital treatment.

There were 3 deaths, all resulting from bronchopneumonia in debilitated children, giving a fatality rate of 4.2 per cent.

Mantoux testing is now carried out as a routine measure in all children convalescent from measles and whooping cough. The test is done late in convalescence to avoid as far as possible interference from the acute infective condition. All positive reactions are followed up by an X-ray picture of the chest, and in this connection acknowledgment must be made of the co-operation of Dr D. G. McIntosh, Tuberculosis Officer, in arranging and reporting on the radiographs. During the year 5 children were found to be suffering from tuberculous infection.

Cerebro-Spinal Fever. •

During the year, 28 cases admitted as " Meningitis " were discharged. In addition, one case notified as anterior poliomyelitis was found to be suffering from cerebro-spinal fever.

The ultimate diagnosis in all these was as follows:—

Cerebro-spinal fever,	8	(1 died)
Tuberculous meningitis,	2	(2 died)
Anterior poliomyelitis,	5	
Cerebral hæmorrhage,	1	
Meningismus,	1	
Influenza,	1	
Gastro-enteritis,	2	
Spasmus nutans,	1	
Miscellaneous (minor ailments), ..	8	
	<hr/>	
	29	
	<hr/>	

The single death from cerebro-spinal fever was in a child who had made a good recovery from the meningitis and whose cerebro-spinal fluid had returned to normal but who died in late convalescence as the result of bronchopneumonia.

Anterior Poliomyelitis.

During the year anterior poliomyelitis reached epidemic proportions, the number of cases throughout the country being the largest ever recorded in any single year. With the exception of one sporadic case in April, all the admissions took place between 6th August and 22nd November, more than half being admitted during September. In all, 60 cases were notified as anterior poliomyelitis and discharged during the year, but the diagnosis was confirmed in only 34. To this number must be added 9 cases admitted as other diseases, so that the total number of confirmed cases was 43.

Age and Sex Incidence.—The age and sex incidence in respect of recoveries (R), deaths (D), and Total (T) is shown in Table V.

TABLE V.

Anterior Poliomyelitis — Age and Sex Incidence.

Age in Years.	Males.			Females.			Males + Females.		
	R	D	T	R	D	T	R	D	T
Under 1, ...	0	0	0	1	0	1	1	0	1
1 — 4, ...	14	0	14	5	0	5	19	0	19
5 — 14, ...	7	1	8	5	0	5	12	1	13
15 — 24, ...	2	0	2	3	1	4	5	1	6
25 — 34, ...	0	0	0	1	3	1	1	2	3
35 — 44, ...	1	0	1	0	0	0	1	0	1
45+,	0	0	0	0	0	0	0	0	0
All Ages, ...	24	1	25	15	3	18	39	4	43

It will be seen that 47 per cent. of the cases were under five, 30 per cent. between five and fifteen and 23 per cent. over fifteen. The fatality rate, however, increased with age, there being no mortality in the under five group, 7.7 per cent. between five and fifteen, and 30 per cent. over fifteen. The fatality rate for all age groups was 9.3 per cent.

Environment.—The home conditions were divided roughly into three categories, namely, good, fair and bad, and the numbers ascribed to each category were as follows:—

Good, 	32
Fair, 	5
Bad, 	6
	—
	43
	<u> </u>

This result, in its own small way, seems to bear out the general observation that anterior poliomyelitis occurs in those communities with the mostly highly developed sanitary systems.

Types of Disease.—Two broad types are recognised, namely, non-paralytic and paralytic, the latter being further classified according to the site of the lesion. The non-paralytic cases all showed changes in the cerebro-spinal fluid and clinical features typical of the disease.

Non-paralytic,	9	
Paralytic—Bulbar,	3	(1 died)
Upper Cervical,	0	
Lower Cervical,	6	
Thoracic,	0	
Lumbo-sacral,	20	
Lumbo-sacral — lower cervical,	2	
Lumbo-sacral — upper and lower cervical — thoracic,	3	(3 died)
	—	
	43	(4 died)
	<u> </u>	

The degree of paralysis has been estimated in rough fashion, since it is obviously impossible to say what the ultimate disability will be until the response to orthopaedic measures is seen. "Slight" means minimal affection not necessitating treatment in an orthopaedic hospital; "moderate" means that orthopaedic treatment was

necessary but the prognosis for further use of the limb was good; "severe" means paralysis likely to be permanent and disabling.

Degree of Paralysis.	Cases.
None, 	9
Slight, 	9
Moderate, 	16
Severe, 	9

Clinical Features.

(a) Non-paralytic.—Seven of the nine cases began with usual features of meningeal irritation. Pain in the limbs was complained of by 3 patients. There was one instance of a transient nystagmus, and oliguria was also noted in one case. Reflexes were normal, apart from some exaggeration of the deep reflexes generally in 2 patients. Changes characteristic of anterior poliomyelitis were invariably present in the cerebro-spinal fluid. Thus there was a normal or slightly increased pressure; pleocytosis, mainly lymphocytic, varying between 30 and 280 cells per cmm.; increase in the protein content; normal sugar and chloride content; Lange reaction either was normal or showed a mid-zone curve.

(b) Paralytic.—Signs of meningeal irritation were present at the onset in just over half of the cases. There was frequently exaggeration of deep reflexes in this stage, which was replaced by diminution or loss of reflexes in the affected limbs with the onset of the lower motor neurone type of flaccid paralysis. There was only one example of nystagmus, and this was transient. Retention of urine was a feature of about 20 per cent. of the cases, but seldom lasted for more than a few days. Pain in the limbs, later to become paralysed, was noted in a third of the patients and the pain often continued even beyond the development of maximal paralysis. Muscular tenderness usually accompanied such pain, and fibrillary twitching was seen in one case. The changes in the cerebro-spinal fluid were exactly as described for the non-paralytic group, and the findings in individual patients depended largely on the day of illness on which the lumbar puncture was done. In a small number of cases lumbar puncture was repeated at intervals of a few days, and most of these showed typical dissociation curves for cells and protein, that is a falling cell count with a rising protein content.

Treatment and Management.

Cases and suspected cases were nursed in cell isolation, the attendants wearing masks and full precautions being taken with discharges and excreta of patients. While paralysis was developing, cases were nursed flat with one pillow and with fracture boards in the bed. Once the paralysis was established splints were applied to the affected limbs, light plaster shells being found the most suitable type. In milder degrees of paresis optimum positioning was obtained by the use of pillows and sandbags. Heat, in the form of fomentations often gave considerable relief where pain was a feature. Passive movements were begun 14 days after the onset of paralysis or on the disappearance of pain and muscular tenderness, whichever was earlier. Three patients required treatment in the mechanical respirator. Two of these died after a few days, and the other died after surviving a period of 102 days. The period of potential infectivity was regarded as 21 days, and as soon as possible after this time patients suffering from paralysis, other than of a very mild nature, were transferred to the orthopædic unit at Bridge of Earn Hospital. A few cases with mild paralysis were discharged home and attended Kemback Street Clinic as outpatients. On discharge from Bridge of Earn Hospital patients were transferred to the care of the schools orthopædic service in the case of children and to their private doctor in the case of adults. In either event further out-patient treatment at Kemback Street Clinic was nearly always advised and arranged. In addition, it should be stated that every case of poliomyelitis was seen by an orthopædic surgeon at least once weekly during the stay in the infectious diseases hospital. It will be obvious that the closest liason existed between the various medical personnel concerned, and thanks are due to the orthopædic surgeons, Mr Smillie and Mr Savill, for making possible that continuity of treatment which is essential for the proper management of anterior poliomyelitis.

Gastro-Enteritis.

In last year's report reference was made to the occurrence of 12 cases of gastro-enteritis of a particularly fatal type. Since then the number of such cases has increased alarmingly, and very little remission of the disease has been apparent throughout the winter months.

In 1947 the number of cases admitted and discharged during the year was 250, the diagnosis being confirmed in 202 of these. In addition, 57 patients admitted as other diseases were found to be

suffering from primary enteritis, so that the total number of confirmed cases was 250. There were 42 deaths giving a case mortality rate of 16.2 per cent.

The above figures, it must be realised, are in respect of gastro-enteritis generally, irrespective of type, and there are, of course, many aetiological different varieties. The type that has given cause for concern is a condition appearing in infants under the age of one year and which, as far as I am aware, is new to the city. The figures quoted above, subdivided in respect of age, are illuminating.

Age Group.	No. of Cases.	No. of Deaths.	Case Mortality Per Cent.
Under 1 year, ...	160	42	26.3
Over 1. year,	99	0	0.0
	<hr/> 259	<hr/> 42	<hr/> 16.2

The subsequent description is of the outbreak in the " under one " age group.

The epidemic began in May when 11 cases were admitted, and the monthly incidence gradually increased until August, when there was 33 admissions. After this there was a slight decrease, but the incidence remained around 20 cases a month. The age distribution is shown in Table VI.

TABLE VI.

Showing monthly age incidence and deaths in infants under 1 year.

Age in Months.	No. of Cases.	No. of Deaths.
0+,	1	0
1+,	12	6
2+,	14	1
3+,	21	5
4+,	21	6
5+,	18	5
6+,	23	7
7+,	14	2
8+,	7	3
9+,	8	2
10+,	12	3
11+,	9	2
Total under 1 year,	<hr/> 160	<hr/> 42

Clinical Features.

The most constant finding was the occurrence of loose stools not necessarily of greatly increased frequency. Green in colour, they occasionally contained mucus but practically never blood. Later in the disease a very characteristic orange tint frequently developed, and this was regarded as worsening the prognosis. In the last stages the stools became intensely watery. Vomiting was often, but not constantly, present, although in a similar outbreak in a neighbouring institution vomiting was much more prominent than looseness of the stools. Dehydration was almost invariably present, and its onset was often extremely rapid, producing the typical picture of a pale, sunken-eyed, ill-looking infant with dry lax skin and depressed fontanelle. Temperature was elevated as a rule with a corresponding increase in pulse rate. No other abnormal signs were elicited save in a few cases where bronchitis or broncho-pneumonia supervened.

Often the infant was admitted to hospital with the disease as described well established and indeed often in a moribund condition. Many cases, on the other hand, appeared to be relatively mild on admission, but worsened after some days, usually a week in hospital. It was difficult to know whether one was observing the natural course of the disease or whether cross-infection was responsible. In this connection it is interesting to note that 54 (34 per cent.) of admissions to the infectious diseases hospital had actually been discharged from one hospital or another shortly before developing gastro-enteritis. Is this a disease of hospitals or a disease of the home? The evidence from this epidemic is inconclusive. One point, however, is very clear—none of the patients was wholly breast-fed.

Post-mortem Appearances.

The most remarkable finding at post-mortem examination was the relatively minimal affection of the gastro-intestinal tract. The wall of the gut was either normal or only slightly hyperaemic. There was, however, ample evidence of the presence of a toxæmia, most noticeable in the liver which was invariably the seat of toxic necrosis.

Bacteriological Findings.

Until September the results of examination of fæces was completely negative for pathogenic organisms, but thereafter special

attention was directed towards the possibility of recovering *b. neapolitanum*, a variant of *bacillus coli*, first described by Bray. The results were as follows:—

- B. *neapolitanum* recovered, 26 cases (9 deaths)
- B. *neapolitanum* not recovered, ... 39 cases (8 deaths)

Of the 26 cases in which the organism was recovered, 17 were severely ill. It is not yet clear whether *b. neapolitanum* is the cause of this type of gastro-enteritis, whether it may be a concomitant organism (cf. *b. proteus*) or whether indeed it has anything at all to do with the condition.

Treatment and Management.

Ideally such cases ought to be nursed in cubicle or cell isolation. Lack of suitable accommodation precluded this, but every precaution possible in open ward nursing was taken. Thus attention was paid to cot spacing; attendants wore masks; special duties were delegated to the nurses so that those preparing feeds, for example, did not “change” the infants; and so on. Treatment was mainly directed to combating dehydration. Unfortunately there is no bedside test to give information on which constituent of the body fluids is depleted. Best results were obtained with the use of Hartmann’s solution. This was given orally whenever possible, and nasal feeding was found particularly effective. One has to be extremely careful in administering fluid parenterally for the least interference with an ill case is liable to produce a fatal result. Dehydration often increases steadily despite a relatively good fluid intake, and one can only presume that in addition to loss of fluid from the bowel there is considerable increase in permeability of the cell membranes probably resulting from toxæmia.

The use of penicillin and the sulphonamide group of drugs is valueless and indeed may do harm. Further experimental work in the field of therapeutics is now proceeding, but it is as yet too early to make any comment other than that the results are at least encouraging. Throughout the epidemic every case discharged from hospital has been kept under observation at home, and it is a pleasure to acknowledge the help and co-operation of Dr Fulton and the various Health Visitors in this connection.

Bacillary Dysentery.

134 patients whose admission diagnosis was bacillary dysentery were discharged during the year. The diagnosis was confirmed in 37 and 6 cases notified as other conditions were found to be suffering from bacillary dysentery making a total of 43 cases. The bulk of those not accepted were suffering from non-specific enteritis. Bacteriological examination of fæces in the accepted group gave the following results:—

B. Dysenteriae Flexner,	22
No Pathogenic Organisms,	21
	<hr/>
	43
	<hr/>

There was one death from the disease, giving a case mortality rate of 2.3 per cent.

Sulphaguanidine is considered the most effective therapeutic agent, but it must be given in large dosage. An adult requires a total dose of not less than 108 grams (216 tablets) given at four-hourly intervals over a period of five days.

Primary Pneumonia.

Primary pneumonia was the admission diagnosis in 128 cases discharged during the year. This was confirmed in 80 and not finally accepted in 48. To the 80 confirmed cases must be added 9 notified as other diseases, thus making a total of 89. With the exception of two patients who developed empyema, complications were not seen. There were 2 deaths, giving a case mortality rate of 2.2 per cent. The treatment of choice was sulphonamide, usually sulphamezathine or sulpha-triad, with penicillin as an adjuvant where necessary. Several children were treated successfully with oral penicillin.

Tuberculosis.

In September, 1946, there was established within the hospital a unit for the treatment of tuberculosis, both pulmonary and non-pulmonary, in children. Accommodation is available for 30 cases. In addition, as a temporary arrangement to relieve the waiting list for sanatorium treatment, a 12-bed unit was made available in October, 1947, for adult females. Admission is arranged by the tuberculosis medical officer. Details of admissions, discharges and deaths during the year are shown in Table VII.

TABLE VII.

Tuberculosis—Admissions, Discharges and Deaths during 1947.

Type of Case.	No. in Hosp. on 31-12-46.	Admis- sions.	Dis- charges.	Deaths.	No. in Hosp. on 31-12-47
Children (under 14 yrs.)—					
Pulmonary,	17	25	22	4	16
Non-pulmonary, ...	13	11	10	1*	13
Adults—					
Pulmonary,	0	16	7	0	9
Non-pulmonary, ...	0	3	0	0	3
All Types, ...	30	55	39	5	41

*Death was due to superadded tuberculous meningitis.

Clinical details in respect of these cases will be found in the report by the tuberculosis officer.

Streptomycin.

A major advance in the therapy of tuberculosis has been the introduction of streptomycin, a substance derived from the actinomycete, *streptomyces griseus*. Only limited supplies of the drug are as yet available in this country, and accordingly clinical trials have been more or less confined to evaluating the drug in tuberculous meningitis and acute miliary tuberculosis of lungs. A number of treatment centres were established throughout the country, and in October, 1947, King's Cross Hospital became one of the five Scottish centres. Sufficient streptomycin to treat four patients at the one time was made available, and as a course of treatment lasts approximately three months, it will be realised that the number of patients able to be dealt with in a year will be limited. It is as yet too early to give any figures on results obtained, but it may be said that they are distinctly encouraging.

Scabies.

Adults suffering from scabies can have out-patient treatment of the condition at the hospital. Appointments can be arranged at Public Health Office, 9 West Bell Street. During the year 162 patients were treated, the total number of attendances being 730; that is, an average of 4.5 attendances per patient.

General.

The year has been a busy one. If the number of patients has not been particularly great, the quality of the cases has entailed a good deal of labour. Epidemics of gastro-enteritis and anterior poliomyelitis and the establishment of the streptomycin centre have involved the nursing and medical staffs in a tremendous amount of work. Resident medical officers have been Drs Margaret Dempster and Charlotte White, and in addition Dr John Brunton has been attached to the hospital in a Government rehabilitation post. I am grateful to all three for the interest they have taken in the various investigations and for the efficient manner in which they have carried out the many duties attached thereto.

A 2-valve X-ray apparatus has now been received on loan from the Department of Health for Scotland and is in process of being installed. In addition, it is likely that an electrocardiograph will be forthcoming.

The need for increased accommodation of the cell type is still urgent. As a temporary measure it has been necessary to adopt barrier nursing completely in one ward to cope with the number of patients requiring a more stringent form of isolation than is possible in an open ward. The structure of the open wards is such that conversion into cell units would be extremely difficult, and there is no alternative to the building of additional cell isolation.

WILLIAM M. JAMIESON, M.D., D.P.H.

DENTAL REPORT — KING'S CROSS HOSPITAL

It is with pleasure that we submit the report for the year, and in doing so wish to thank the hospital staffs for their kind assistance.

Our future services are uncertain owing to the hospital coming under the Regional Hospital Board, but it is hoped that we may be able to co-operate with the new authority to the advantage of all concerned.

It will be noted that the number of patients inspected is 88, while 42 received treatment. The remainder are awaiting treatment, and will be dealt with during the routine visits of the dental officer.

The staff are examined at King's Cross Hospital and given treatment at the dental surgery at Maryfield Hospital, and this has proved very satisfactory.

Dental Report—Patients.		Dental Report—Staff.	
No. Inspected,	88	No. Inspected,	43
No. Requiring Treatment,	42	No. Requiring Treatment,	26
No. Treated—		No. Treated—	
Initial Visit,	12	Initial Visit,	23
Return Visit,	1	Return Visit,	6
Extractions—		Extractions ...	
Permanent Teeth,	3	Fillings,	52
Temporary Teeth, ...	5	Other Operations,	1
Fillings, (Permanent T.),	5	Scaling,	5
Other Operations,	2	General Anæsthetics,	1
Scaling,	1		

DAVID A. FINLAYSON,
Dental Officer.

TUBERCULOSIS SECTION

By Dr D. G. McINTOSH, Tuberculosis Medical Officer

1. Deaths and Notifications.

In the sphere of tuberculosis, 1947 has been on the whole a disappointing year. Notifications and deaths have shown a considerable increase, and the position cannot be regarded as other than disquieting. The picture is, however, not altogether gloomy. Indeed, the year must rank as one of the most notable in the history of the anti-tuberculosis campaign in the City because it saw the introduction for the first time of a therapeutic agent (streptomycin) which has an unequivocally beneficial action against the tubercle bacillus in certain cases.

The death-rate (0.94 per 1,000) for all forms of tuberculosis was the highest since 1931 with the exception of 1942 when the rate was 1.02. Compared with 1946 the pulmonary figures show a decided increase. There were 149 deaths (0.82 per 1,000). This figure is the highest since 1927 when the rate was 0.89. Some consolation is found in the non-pulmonary deaths, the number of which was 20, a figure that represented a drop of 9 from 1946 and which gives a rate of 0.11 as against 0.17. This figure is the lowest since notification of the non-pulmonary form of the disease was introduced in March, 1914. It is reasonable to attribute the fall to the fact that an increasingly large proportion of the milk consumed in the City is either obtained from tubercle-free herds or is heat-treated. Details of deaths are given in Table 1 of the appendix.

To return to the pulmonary deaths it is necessary to direct attention to the fact that while considerable fluctuations have occurred in individual years, the sharp drop which took place in the decade following the first world war had actually been halted several years before the outbreak of the late war. This point is an important one since a corrective is required, so far at least as Dundee is concerned, to the impression that the deterioration was directly associated with the war-time conditions. If a graph making use of the rates of overlapping quinquennia is constructed it will be seen that the figures commenced to rise in the 1930's and have continued to do so since.

In the annual report of the Royal Victoria Tuberculosis Trust for 1946-1947 it is pointed out that while in England a progressive fall in deaths occurred after the war-time increase in 1941, the position in Scotland has been different. "1946 thus provided rising death and notification rates which give little cause for complacency or satisfaction. There is, in fact, an increased incidence of tuberculous disease in Scotland and an increased mortality from the disease."

Notifications of pulmonary tuberculosis numbered in Dundee 359 which represents an increase of 89 over 1946 and a rate of 1.99 per 1,000 which is the highest since 1922 when the figure was 2.33. Non-pulmonary notifications also showed an increase of 26 over 1946, and the total (77) gives a rate of 0.43. Details are shown in Table 2 of the appendix. Details of age, sex, and site of disease of the non-pulmonary group are shown in Table 4 of the appendix.

We are faced with a serious deterioration in the situation of pulmonary tuberculosis in the City. Although the disease, once the leading cause of death, now ranks well below cancer and heart disease, it is still the major killing and crippling disease of young adults. In the following table deaths from pulmonary tuberculosis are expressed for 1947 as percentages of deaths from all causes in the younger years of adult life.

	FEMALES			MALES		
	Ages			Ages		
	15-24	25-34	35-44	15-24	25-34	35-44
Total deaths,	33	37	55	21	24	67
Pulm. Tb. deaths,	21	21	13	9	11	14
Pulm. Tb. deaths as a % of total deaths,	63.64	56.76	23.64	42.86	45.83	20.90

It will be seen that 64, 57, and 24 per cent. respectively of deaths occurred in women while in men the corresponding percentages were 43, 46, and 21.

Pulmonary tuberculosis causes death among young adult females during the years when their value to the community as mothers is at its maximum.

In men the highest mortality occurs at a slightly later age, but at a time when familial responsibilities are in greatest demand.

High as the figures for mortality are, the disease, by affecting so notably the younger age groups, causes familial suffering and a loss to the community which are out of proportion to the numbers actually affected.

Three questions keep reiterating themselves in any consideration of this problem:—(i) Why have the figures for mortality and morbidity increased? (ii) Why are young men and women principally affected? (iii) Why is the case mortality so high? The answer to the first question is difficult but it seems likely that a combination of factors is at work—bad housing conditions; the long sanatorium waiting list which results in open sources of infection remaining in the household. The influence of diet is difficult to assess and so far conclusive evidence is lacking that apart from its want of variety the present day diet is short of any of the essential constituents required for health. For question (ii) we have also no clear-cut answer. In the young adult female biological factors appear to play an important part, while in the male group the strain imposed in the third and fourth decades by the need for creating and maintaining a home is probably the principal factor. A more definite answer is forthcoming to the third question. Of the factors which affect the outlook in a case of phthisis the outstanding one is the amount of lung tissue which is found to be diseased when the patient first seeks treatment. In Dr Smith's section of the Report it will be seen that of 176 cases of pulmonary tuberculosis admitted to Ashludie Sanatorium during 1947 only 51 were early or moderately early while 125 were moderately advanced or advanced. Experience at the Tuberculosis Dispensary is that neglect on the part of the patient to seek medical advice when symptoms first manifested themselves can only account for comparatively few of the advanced cases. In the majority it would appear that the early and moderately early stages of pulmonary tuberculosis are either not associated with symptoms or are associated with symptoms which are regarded by the patient as trivial and which do not lead him to seek advice of his doctor. This means that if we are to reverse the proportion of minimal to advanced cases we must use additional weapons in our anti-tuberculosis campaign. While it is essential to employ with the utmost vigour the existing machinery for the diagnosis of patients who have sought medical advice on account of symptoms, arrangements must be made for the X-ray examination of those groups of the population who are especially liable to suffer from phthisis. In his report for 1946 (p.14) Dr Burgess refers to the proposals for establishing a mass radiography

unit in Dundee. The X-ray apparatus has been delivered to the Public Health Institute and the work of altering the premises to enable it to function is almost complete. Considerable difficulty is however likely to be experienced in securing adequate staff, especially radiographers.

2. Examination of Contacts.

Arrangements already exist for the examination of contacts of known cases of tuberculosis but the response is comparatively poor. This applies particularly to contacts in the young adult age groups who, despite the fact that every effort is made by the district health visitors to persuade them to attend for examination, fail to report in adequate numbers. During 1947, 443 contacts of pulmonary cases and 34 contacts of non-pulmonary cases were examined for the first time. Of the pulmonary group 202 were males and 241 were females. Eighteen males (8.91 per cent.) and 21 females (8.71 per cent.) were found to have pulmonary tuberculosis. Twenty (10 males and 10 females) were under 15 years and 19 of these cases were of primary type. Of the remaining 19 cases who were over 15 years, 2 were found to have a pleural effusion. The classifications of the other 17 cases were: minimal, 8; moderately advanced, 4; far advanced, 5. Four of the contacts of the non-pulmonary cases were found to have pulmonary tuberculosis, the classifications being as follows: primary type, 1; minimal, 1; moderately advanced, 2. Thus of 387 contacts over 15 years 20 (5.17 per cent.) were found to have pulmonary tuberculosis, the classifications being: minimal, 9; moderately advanced, 6; far advanced, 5. These numbers are small but they agree with the findings of larger surveys that some 50 per cent. of contacts are in the minimal stage in contrast to symptomatic cases where the corresponding figure is in the region of 10 per cent.

3. Surveillance of pre-phthisical tuberculous conditions.

It is now accepted that the majority of cases of so-called idiopathic pleurisy, erythema nodosum and episcleritis are of tuberculous aetiology. A study of cases of pleurisy with effusion reveals that some 25 per cent. develop phthisis within 5 years. Yet it is still true that a large number are not having proper surveillance. Until arrangements are made for all cases of pleurisy with effusion, erythema nodosum and phlyctenular conjunctivitis to have a suitable period of radiological surveillance a wide gap will exist in the

anti-tuberculosis scheme. This calls for closer co-operation between the tuberculosis service and those branches of medicine where the conditions referred to above are encountered.

4. Housing.

Reference has already been made to the deleterious influence which the unsatisfactory housing conditions at present existing in the city have had on the tuberculosis mortality and morbidity figures. When a person suffering from tuberculosis is discovered to be living in an overcrowded house details of the case, if not already known, are brought to the notice of the City Factor by the Medical Officer of Health. In addition recommendations are made from the Tuberculosis Dispensary to the Medical Officer of Health that certain families—especially those where an infectious case exists in an overcrowded house—should be included in the Special Tuberculosis Housing List. The Town Council have authorised the City Factor to give priority to families included in this list and recently a great deal has been done by the Factorial Department to secure adequate accommodation for these cases.

The following is a summary of the position between June 1, 1947 and March 31, 1948.

Number of families on Special List,	112
Number of families added to list,	75
(a) Number of families rehoused,	54
(b) Number of families removed from list by reason of the death of the tuber- culous patient,	20
(c) Number of families removed from list for other reasons,	4
Number of families remaining on list at March 31, 1948, ...	109

Particulars regarding the housing of notified cases of pulmonary and of non-pulmonary tuberculosis during 1947 will be found in Tables 5 and 6 of the appendix.

5. Sanatorium Waiting List.

During the year the serious state of the waiting list for Ash-ludie Sanatorium, to which Dr Hunter drew attention in last year's report, has not shown any material alteration. The main difficulty is to secure the early admission of adult pulmonary cases, especially women, although there is a growing tendency for adult males and children (for King's Cross Hospital) to have to wait unduly long periods before admission. The following figures for the quarters of 1947 will show the unsatisfactory position.

Number of patients on Waiting List for ten days or more for the quarters of 1947 (i.e., at March 31 (1), June 30 (2), September 30 (3), and December 31 (4)).

	(1)	(2)	(3)	(4)
Pulmonary—Adults—Males,	6	7	14	15
Females,	12	35	35	44
Children—Males,	—	4	5	2
Females,	—	3	3	2
Non-Pulmonary Adults—Males,	—	—	4	1
Females,	—	—	—	1
Children—Males,	—	—	—	—
Females,	—	—	—	—
	18	49	81	65

As is well known the position at Ashludie Sanatorium is due to the lack of nursing and domestic staff. Every effort is being made to overcome it but those who have an intimate knowledge of the problem are of the opinion that it cannot be overcome satisfactorily until a comprehensive scheme for the training of nurses is instituted. In the meantime in order to relieve matters somewhat, cases of pleurisy with effusion continue to be admitted to Bridge of Earn Hospital, twelve beds at King's Cross Hospital have been set aside for the admission of adult women, and the Medical Officer of Health has recently, through the Department of Health for Scotland, secured an arrangement whereby a few cases of female non-pulmonary tuberculosis may be admitted to Stracathro Hospital.

6. Rehabilitation of the Tuberculous.

Those engaged in tuberculosis work are continually being impressed with the fact that the causes of breakdown following successful treatment are often to be found in the type of work which the patient is forced to take up to maintain his livelihood. The Government have very wisely set up machinery under the Disabled Persons (Employment) Act, 1944, to enable those who are recovering from tuberculosis or who are disabled by it to secure suitable employment. This Act has resulted in the establishment of a special branch of the Ministry of Labour and of the appointment of a new official called the Disablement Rehabilitation Officer. Very properly it has been recommended that the Disablement Rehabilitation Officer and the Tuberculosis Physician should work in very close co-operation. In Dundee a meeting is held at the Public Health Institute on every other Thursday afternoon when patients

are interviewed and their cases fully discussed. These meetings are of the greatest help and have resulted in many patients being placed in suitable employment.

During the period 21.10.47 and 13.5.48, 67 persons (48 men and 19 women) have attended these interviews.

7. King's Cross Hospital.

During 1947, 40 children suffering from primary pulmonary tuberculosis and 22 children suffering from non-pulmonary tuberculosis were treated in Ward 7, King's Cross Hospital. Details of the pulmonary cases are as follows:—

Ages.	In hosp.,		Discharged	Died	Remaining
	Dec. 31,	Admitted During	as quiescent or cured during 1947.	During 1947.	in hosp. Dec. 31, 1947.
0—4 yrs.	M. 6	10	8	1	7
	F. 6	8	8*	3	3
5—9 yrs.	M. 4	2	4	—	2
	F. 1	2	1	—	2
10—12 yrs.	M. —	1	—	—	1
	F. —	—	—	—	—
Total,	M. 10	13	12	1	10
	F. 7	10	9	3	5

*One female patient, though still suffering from active disease, was allowed home to have domiciliary treatment in view of good housing conditions.

In primary tuberculosis, in contrast with the acute infectious diseases of childhood, it is not possible to give a case mortality figure until the patients have been observed for a relatively long period. However most of the fatal cases occur during the six months following the establishment of the primary infection. The immediate mortality of the above cases (10%) is considerably lower than that which is encountered in the destructive type of pulmonary tuberculosis met with in older persons. Furthermore, death associated with the primary form of infection is practically always due to the occurrence of meningeal or miliary tuberculosis. These conditions accounted for three of the four deaths which occurred during the year. Since the results of the treatment of meningeal and miliary tuberculosis with streptomycin (see below) have been encouraging, the need for early diagnosis of primary infection and more especially of the hitherto highly lethal sequelæ which are apt to follow closely upon its heels, cannot be too strongly emphasised.

Details of the 22 non-pulmonary cases treated in 1947 are shown below.

Ages.		In hosp., Dec. 31, 1946.	Admitted During 1947.	Discharged as quiescent or cured during 1947.	Died During 1947.	Remaining in hosp. Dec. 31, 1947.
0—4 yrs.	M.	1	2	1*	1	1
	F.	1	—	—	—	1
5—9 yrs.	M.	2	3	—	—	5
	F.	6	1	5	—	3
10 yrs. +	M.	1	—	—	—	1
	F.	2	3	—	—	4
Total,	M.	4	5	1	1	7
	F.	9	4	5	—	8

*Removed against medical advice.

Sites of Disease in 22 Non-Pulmonary Cases.

Site of Disease.	0-4 Yrs.		5-9 Yrs.		10 Yrs. +		All Ages.
	M.	F.	M.	F.	M.	F.	
Abdomen,	1	—	1	—	—	—	2
Glands,	—	—	—	1	—	—	1
Bones and Joints, ...	1	1	2	5	—	1	10
Spine,	1*	—	2	2	1	2	8
Other Forms,	—	—	—	—	—	1	1
Total,	3	1	5	8	1	4	22

*Died.

Note 1.—One child suffering from abdominal tuberculosis aged 0-4 years was removed against medical advice.

Note 2.—One child aged 0-4 years under treatment for spinal tuberculosis died of meningeal tuberculosis.

The non-pulmonary cases are seen regularly by Mr I. S. Smillie, F.R.C.S., Orthopædic Surgeon, who is responsible for supervising their treatment. Cases with a combination of pulmonary and non-pulmonary lesions are cared for jointly by Mr Smillie and me, and this arrangement has worked admirably. There is no doubt that the correct procedure is for the bone and joint cases to be placed under the control of the orthopædic surgeon. The tuberculosis physician should see all cases initially in order to make a thorough general examination and assessment, and others as special circumstances arise.

In October, 1947, the Town Council agreed to the recommendation of the Medical Officer of Health that 12 beds in Ward 8 be made available for selected cases of tuberculosis in adult females,

in order to relieve the pressure on Ashludie Sanatorium. Between the date of opening of this unit and the end of the year 15 cases were admitted. Five were subsequently transferred to Ashludie Sanatorium for collapse therapy. Details are as follows:—

	Under 15 yrs.	16-19 yrs.	20-24 yrs.	25-34 yrs.
Admitted,	2	8	4	1
Transferred to Ashludie Sanatorium,	—	3	2	—

This unit has proved to be of considerable value. The aim is to admit early cases. After a period of observation those requiring surgical treatment are transferred to Ashludie Sanatorium while the cases which require bed rest alone are retained in King's Cross Hospital.

8. Streptomycin Treatment for Meningeal and Miliary Tuberculosis.

In 1944 Waksman and his colleagues in America extracted from cultures of a mould *Actinomyces griseus*, an antibiotic (streptomycin), which was found to be active against a number of micro-organisms including the tubercle bacillus. Initial trials in America gave encouraging results, and following the opening of a number of centres in England, five centres, of which one is in King's Cross Hospital, were established in Scotland. Streptomycin is very scarce, and the Department of Health for Scotland are able to allocate sufficient of it to treat only 4 cases in Dundee at one time. Preliminary investigations had indicated that the most promising results were likely to be obtained in meningeal and miliary cases, and the trials at present being conducted are confined to those forms of the disease. In the past from time to time announcements of supposed "drug" cures for tuberculosis have been made, and in each instance after raising the hopes of the tuberculous population only disappointment resulted. Accordingly it is necessary to emphasise that streptomycin is still very much in the experimental stage. It can be said, however, that the initial results both in America and in this country are distinctly encouraging.

Since the Dundee centre was opened in October, 1947, 14 cases have been treated. There have been 3 deaths, and in each of these the disease was in an advanced stage. Of the 10 surviving meningeal cases 6 have had a minimum of 8 weeks treatment; 4 are improving clinically, and in 2, owing to failure of response, treatment

was stopped at $9\frac{1}{2}$ and 9 weeks respectively. Of 4 more recent cases which have had treatment from 12 days to 7 weeks, 3 are improving clinically and 1 is not responding. A single case of miliary tuberculosis is showing a good clinical response after 9 weeks treatment. Thus of 11 surviving cases 8 are improving clinically and 3 are not responding satisfactorily.

9. Bridge of Earn Hospital.

During 1947, 10 males and 8 females suffering from pleurisy with effusion were admitted, and 8 males and 6 females were discharged.

10. Attendances at Tuberculosis Clinic.

Compared with 1946 there was an increase of 354 in the attendances at the Clinic. Monthly figures and totals for 1946 and 1947 are given in Table 7 of the appendix.

11. Artificial Pneumothorax Treatment.

During 1947 there were 1,484 attendances at the Artificial Pneumothorax Clinic, of which 586 were males (an increase of 148 over 1946) and 898 were females (an increase of 158 over 1946).

12. X-Ray Department.

During 1947, 3,800 chest skiagrams, an increase of 1,218 compared with 1946, were taken. Of the 3,800 skiagrams:—

3,470 were taken for the tuberculosis clinic;

13 were taken for the venereal diseases clinic;

317 were taken in connection with other medical examinations (staffs of day nurseries, superannuation scheme, etc.).

13. Laboratory Work.

During 1947, 736 specimens of sputum were examined with the following results:— Positive, 96; negative, 640.

14. Premises and Equipment.

The existing one-valve X-ray plant, which is not only incapable of meeting the demands of modern chest radiology but is insufficiently protected, is being replaced by a two-valve set which has been loaned to the Corporation by the Department of Health for Scotland. This unit has been delivered to the Public Health Institute and the premises have been altered to accommodate it. A slight delay has arisen in connection with the completion of painterwork.

The existing darkroom, which is insufficiently ventilated, is too small for the volume of work which is now undertaken (approximately 100/120 chest skiagrams per week). It is recommended therefore that after the new set is installed the present X-ray room be converted into a darkroom.

15. Staff.

Dr J. H. Hunter, Tuberculosis Medical Officer, retired in February, 1947, and I had the privilege of being appointed to succeed him by the Corporation. I should like to record my thanks to Dr Hunter for his great kindness in assisting me with the many problems with which I was faced in commencing my new post.

The Thoracic Surgery Service, which is under the direction of Mr Bruce Dick, F.R.C.S., and which is centred at Ashludie Sanatorium, has been of great assistance to the Dispensary by carrying out a number of diagnostic bronchoscopic examinations. It is obvious that the demands for these examinations will steadily increase in the future.

Mrs Caroline Hunter was transferred from the Central Public Health Office to assume the post of typist in February, 1947.

Miss Jean Allardice was appointed to the post of part-time nurse radiographer in September, 1947.

It will be seen that the work of the X-ray Department has increased considerably. There is an urgent need for the appointment of a part-time darkroom technician, since in an X-ray unit which is dealing with 100/120 chest skiagrams each week it is quite impossible for the radiographer to undertake also the darkroom work.

Miss Mabel Lakie was appointed liaison health visitor in October, 1947, and the creation of this post has greatly helped to correlate the work of the District Health Visitors with that of the Tuberculosis Dispensary.

A perusal of the figures of the various parts of this report will show that the whole tempo of the work of the Tuberculosis Section has increased, and the Corporation, in association with the Eastern Regional Hospital Board have decided to appoint a whole-time assistant tuberculosis medical officer.

APPENDIX

Table 1.—Details of Deaths from Tuberculosis in 1947.

	Pulmonary.			Non-Pulmonary.		
	M.	F.	Total.	M.	F.	Total.
Under 1 year,	—	—	—	—	—	—
1—4 years,	3	3	6	4	3	7
5—14 years,	—	4	4	2	2	4
15—24 years,	9	21	30	3	2	5
25—34 years,	11	21	32	—	—	—
35—44 years,	14	13	27	—	—	—
45—64 years,	28	7	35	2	2	4
65 years and over, ...	9	6	15	—	—	—
Total,	74	75	149	11	9	20

Table 2.—Details of Notifications of Tuberculosis for 1947.

	Pulmonary.			Non-Pulmonary.		
	M.	F.	Total	M.	F.	Total.
Under 1 year,	1	2	3	—	—	—
1—4 years,	15	12	27	11	4	15
5—14 years,	15	14	29	16	13	29
15—24 years,	46	61	107	5	13	18
25—44 years,	61	61	122	3	4	7
45—64 years,	49	8	57	4	3	7
65 years and over, ...	7	7	14	—	1	1
Total,	194	165	359	39	38	77

Table 3.—Details of Origin of Notifications of Tuberculosis (all forms) for 1947.

Tuberculosis Clinic,	243
Private Practitioners,	49
Maryfield Hospital,	28
Dundee Royal Infirmary,	63
Medical Officers Outside Dundee,	19
Registrar Following Death of Patient,	34
Total,	436

Table 4.—Notified Cases of Non-Pulmonary Tuberculosis.
Details of Age, Sex and Site.

Site of Disease.	Under 1		1-4		5-14		15-24		25-44		45-64		65 & Over.
	Year.		Yrs.		Yrs.		Yrs.		Yrs.		Yrs.		Yrs.
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Meninges,	—	—	3	2	2	2	1	1	—	—	1	—	—
Abdomen,	—	—	2	—	2	2	2	2	—	—	1	—	—
Glands,	—	—	3	1	4	3	2	3	1	2	—	1	—
Bones and Joints, ...	—	—	1	1	4	2	—	1	1	—	—	—	—
Spine,	—	—	1	—	3	2	1	1	—	—	—	—	1
Other Forms,	—	—	1	—	—	2	—	5	1	2	2	1	—
Total,	—	—	11	4	15	13	6	13	3	4	4	2	—

Table 5.—Pulmonary Tuberculosis — Details of Housing.

No. of Rooms.	No. of Cases.	Total No. of Persons.	No. of Persons per Room.
1	36	92	2.55
2	117	489	2.09
3	86	408	1.58
4 and upwards	69	450	1.63

In 41 cases home conditions were not obtained.

Table 6.—Non-Pulmonary Tuberculosis — Details of Housing.

No. of Rooms.	No. of Cases.	Total No. of Persons.	No. of Persons per Room.
1	4	16	4.00
2	17	69	2.03
3	22	125	1.89
4 and upwards	14	80	1.42

In 20 cases home conditions were not obtained.

Table 7.—Attendances at Tuberculosis Clinic for 1946 and 1947.

Month.	1946.	1947.
January,	745	820
February,	773	627
March,	789	755
April,	785	973
May,	787	853
June,	650	558
July,	583	844
August,	792	734
September,	710	837
October,	820	856
November,	782	770
December,	847	790
Total,	9,063	9,417

Table 8.—Number of Cases Which Received Treatment in Sanatoria or Other Institutions During 1947.

	In Institu- tions on Jan. 1.	Admitted During the year.	Discharged During the Year.	Died in the Institutions.	In Institu- tions on Dec. 31.
Pulmonary—	1.	2.	3.	4.	5.
Adults—					
Males,	105	151	99	34	2
Females, ...	96	140	77	27	—
Children—					
Males, ...	12	10	12	2	—
Females, ...	12	6	12	1	—
Non-Pulmonary—					
Adults—					
Males, ...	7	—	—	3	—
Females, ...	3	3	—	2	—
Children—					
Males, ...	18	2	2	—	—
Females, ...	9	2	3	2	—
Total, ...	262	314	205	71	2

Column 4 refers to those who were in final residence 28 days or more.

Column 5 refers to those who were in final residence for less than 28 days.

All patients of 15 years and upwards are classified as adults.

Table 9.—Number of Persons Resident in Dundee at December 31, 1947, who are Known to be Suffering from Tuberculosis.

Under 1 Yr.											1-4 Yrs.	5-9 Yrs.	10-14 Yrs.	15-24 Yrs.	25-34 Yrs.	35-44 Yrs.	45-64 Yrs.	65 & Over.	Total.
Pulmonary—																			
1.	Sputum not present,	M.	—	11	15	11	67	39	19	18	6	186							
		F.	—	8	13	10	72	63	17	8	7	193							
2.	Sputum present but not examined,	M.	—	1	4	6	29	53	18	14	5	130							
		F.	—	2	1	2	30	17	7	8	7	74							
3.	Sputum examined and tubercle bacilli found,	M.	—	—	—	—	8	24	28	33	5	98							
		F.	—	—	—	—	25	31	14	10	—	80							
4.	Sputum examined and tubercle bacilli never found,	M.	—	—	3	1	43	44	31	50	4	176							
		F.	—	—	2	3	31	53	31	25	6	151							
Total,		—	—	22	38	33	305	324	165	166	40	1,093							
Non-Pulmonary—																			
1.	Abdominal,	M.	—	—	7	3	4	—	—	—	—	14							
		F.	—	—	1	1	1	—	—	—	—	3							
2.	Spine,	M.	—	—	2	2	8	—	1	1	—	14							
		F.	—	—	2	3	7	9	2	3	1	27							
3.	Bones and joints (exclusive of spine), ...	M.	—	1	7	4	7	8	2	—	—	29							
		F.	—	1	6	1	3	3	—	4	—	18							
4.	Superficial glands,	M.	—	2	8	4	5	9	2	—	—	30							
		F.	—	—	4	5	4	3	1	2	—	19							
5.	Lupus,	M.	—	—	—	—	—	—	—	—	—	—							
		F.	—	—	—	—	—	—	1	3	—	4							
6.	Other parts or organs,	M.	—	1	—	—	1	7	—	1	—	10							
		F.	—	—	—	—	3	3	1	2	—	9							
Total,		—	—	5	37	23	43	42	10	16	1	177							
Pulmonary and non-pulmonary total,		—	—	27	75	56	348	366	175	182	41	1,270							

Table 10.—Number of Persons Who Died from Tuberculosis in 1947, with particulars as to period elapsing between notification and death and between discharge from an institution and death.

	Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.
Number of persons who died from tuberculosis of whom—				
Not notified or notified only at or after death,	3	6	5	4
Notified less than 1 month before death, ...	25	15	5	5
Notified from 1 to 3 months before death, ...	9	3	—	—
Notified from 3 to 6 months before death, ...	8	3	1	—
Notified from 6 to 12 months before death,	2	11	—	—
Notified from 1 to 2 years before death,	7	8	—	—
Notified over 2 years before death,	20	29	—	—
Total,	74	75	11	9
Number who died within 28 days after discharge from an institution,	—	2	—	—
Number who died more than 28 days after discharge from an institution,	10	18	—	—

ASHLUDIE SANATORIUM

Report by Dr D. H. SMITH,
Medical Superintendent.

During the year 1947, 196 patients were admitted and 187 discharged, this latter figure including 44 who died, 2 cases being of non-tuberculous condition. Included in the admissions are 34 re-admissions — 20 male and 14 female.

Admissions—	Male.	Female.	Children under 12.	Total.
Tuberculosis of Lungs and Pleura,	99	78	2	179
Disseminated tuberculosis, ..	8	5	—	13
Non-tuberculous,	4	—	—	4
Discharged,	88	53	2	143
Deaths,	27	17	—	44
Number of beds occupied on December 31, 1947,				153
Highest daily number of patients,				170
Lowest daily number of patients,				140
Average daily number of patients,				157
Average residence of those discharged,				278 days
Average residence of those who died,				190 days

Age and Sex Distribution of Admissions.

Age.	Pulmonary.		Disseminated.		Non-tuberculous.		Total.
	M.	F.	M.	F.	M.	F.	
0-5,	—	—	—	—	—	—	—
5-15,	—	5	3	—	—	—	8
15-25,	28	41	2	4	1	—	76
25-35,	25	21	2	—	1	—	49
35-45,	24	10	—	—	1	—	35
45-60,	19	3	1	1	—	—	24
Over 60,	3	—	—	—	1	—	4

Classifications of Pulmonary Admissions.

Pleural Effusions.	Moderately Early.		Moderately Advanced.		Total.
	Early.	Early.	Advanced.	Advanced.	
3	14	37	9	116	179

Disseminated Admissions — Site of Disease.

Spine,	6
Spine and lungs,	1
Kidney,	2
Abdomen,	1
Hip,	1
Ankle,	2

Diagnosis of Non-tuberculous Cases.

Malignant teratoma of lung,	1
Bronchial carcinoma,	2
Pneumonitis,	1

Condition on Discharge.

	Male.	Female.	Children.	Total.
Much improved (quiescent),	20	19	1	40
Improved,	51	20	1	72
No change,	11	6	—	17
Worse,	4	7	—	11
Died,	27	17	—	44
Non-tuberculous,	2	1	—	3

Age Group and Sex of Those who Died (including Non-tuberculous cases).

	Male.	Female.	Total.
0-5,	—	—	—
5-15,	—	—	—
15-25,	8	6	14
25-35,	6	6	12
35-45,	6	3	9
45-60,	6	2	8
Over 60,	1	—	1

Cause of Deaths.

Pulmonary Tuberculosis,	34 cases
Pulmonary Tuberculosis and tuberculous meningitis,	2 cases
Pulmonary tuberculosis and diabetes mellitus,	2 cases
Tuberculosis of hip and lungs,	1 case
Tuberculosis of spine,	3 cases
Tumour of lung,	2 cases

Special Treatment of Pulmonary Admissions.

Thoracoplasty operations,	5 cases
Artificial pneumothorax,	53 cases attempted
Bilateral artificial pneumothorax,	8 cases attempted
Phrenic nerve operations,	36 cases
Thoracoscopy and adhesion section operations,	15 cases
Bilateral thoracoscopy and adhesion section operation,	1 case
Thoracoscopy,	14 cases
Pneumoperitoneum,	22 cases
Gold therapy,	4 cases

Treatment Block, Including Theatre.

Artificial pneumothorax refills and other minor operations,	1912
Adhesion section operations,	60
Pleural aspirations and lavage,	83
Phrenic nerve operations,	50
Bronchoscopy,	14
Thoracoplasty operations,	13 (33 stages)
Operations (including Thoracoplasty) under general anæsthesia,	43
Gold injections,	382
Plasters of all types, including beds,	65
X-rays,	1288

It might be interesting to recall that the Sanatorium has been in existence for 32 years. In 1916 there were 64 available beds; in 1932 the institution was extended to accommodate 120 patients and equipped for the modern treatment of all types of tubercular cases. Again in 1942 the accommodation was increased by 20 beds through covering the verandah of the hospital block, and in 1945 another 40 beds were added by using the hutted annexes provided by the Government during the war years under the Emergency Medical Services. The present accommodation is for 180 cases.

During the period of 32 years, 4,561 patients have been admitted, and while it is impossible to indicate the number of persons in whom the disease has been arrested, it can be said with certainty that a high proportion have benefited markedly from the period of treatment, resulting in the performance of useful work within the community for a much longer period than they could otherwise have done. Added to this, the organisation of the Sanatorium has taught positive rules of health to all of these patients, and it can be assumed confidently that the effect of this health education has been brought to the home of each individual patient, who, in turn, has affected the ideas of healthy living of the members of each family. The Sanatorium has three aims within the community; firstly, to attempt to cure individual patients suffering from tuberculosis; secondly, to educate the patient population in positive rules of health so that they may maintain and improve that state of health; and, thirdly, to prevent the spread of the disease to healthy members of the community. In these latter aims, which are most necessary, the Sanatorium has played and will continue to play an important role in preventative medicine within the City of Dundee.

Undoubtedly the most acute problem facing the hospital during the year has been the shortage of women nursing staff, and it does not appear that this difficulty will be less acute at any time in the immediate future. It is realised, of course, that there is a general shortage of nurses, but the position in both Sanatoria and Mental Institutions is worse than in other types of hospitals. The recruitment of part-time nurses has been disappointing; although untrained women orderlies are available, only a limited number of this type of staff can be used without trained nurses to supervise their work. The high proportion of untrained staff has added considerably to the work and responsibility of the ward sisters, but in spite of the acute nursing difficulties it has been possible to maintain the full bed state of the Sanatorium (180 beds) during 1947, which reflects credit on the matron and her senior staff. At the time of writing this report the Corporation have provided a car for transport of part-time nurses; it is hoped that this will improve recruitment.

It has been stressed previously, and no apology is made for repeating the assertion, that the only hope of providing adequate nursing staff in special hospitals is some form of comprehensive training whereby the probationer nurse spends a prescribed period of her training in each of these institutions. There was a time when general hospitals would not accept probationer nurses until they were 20 or 21 years of age, so that the special hospitals were able to recruit nurses at the age of 18 years; now the general hospitals accept probationer nurses at this latter age, which has added materially to the difficulties of the special hospitals. A Government Working Party published a report recently on nursing, in which it would appear that they have accepted the principle of a comprehensive training; the overall changes in nursing training suggested by the Report are so drastic that, obviously, it will be a number of years before the recommendations can be put into practice.

The treatment of lung tuberculosis has not changed from previous years, except that it has been possible to make more extensive use of major collapse therapy now that the services of a thoracic surgeon are available. Apart from the operative work performed, Mr Dick and Mr Barclay have been invaluable in a consultative capacity. The Corporation have made a very progressive move by providing this thoracic service at Ashludie Sanatorium; it is hoped that the Regional Hospital Board will continue the arrangement. Patients for thoracic surgery and consultations are admitted from

Noranside Sanatorium by arrangement between the Angus County Council and Dundee Corporation. Thirteen thoracoplasty operations (33 stages) were performed during the year since the service was commenced in May, 1947. All patients who have had a thoracoplasty operation performed are doing well at the time of writing this report. A summary of the operative work performed is contained in the report.

Once again it will be noted that a great majority of pulmonary admissions are classified as "advanced," when treatment is much more difficult and the end result less certain. Furthermore, it will be noted that the majority of admissions are within the 15-35 age group, that the highest proportion of female admissions are within the 15-25 age group, and that there is a much higher proportion of men than women admitted in the over 35 age group. With regard to deaths, once again the highest rate is within the 15-35 age group; a higher proportion of men than women die in the over 35 age group. These figures are as one would expect in a disease where social and environmental factors play so large a part in determining the course. The number of deaths in 1947 bears much the same relationship to those discharged as it did in 1946. Before the treatment of pulmonary tuberculosis can hope to be satisfactory there must be improved methods of case finding; it must be emphasised, once again, that to wait until abnormal signs appear in the lungs before arriving at a diagnosis of pulmonary tuberculosis, generally means that it is too late for effective treatment. The general practitioner must be dependent upon the history which the patient relates to make him suspect the presence of tuberculosis when the disease can be excluded only by radiological examination. Unfortunately it is true that frequently the patient does not present himself to the family doctor until symptoms have been present for some considerable time. The effective use of "Mass Radiography" will be an aid in detecting cases at an early stage, providing the public co-operate in the scheme.

Mr I. S. Smillie, Orthopædic Surgeon to the area, has attended for any operative procedures or advice necessary in the diagnosis and treatment of cases of bone and joint tuberculosis. His help has been invaluable. Generally, treatment of these cases has been along the usual conservative lines: arthrodesis of the hip was performed in three cases, while arthrodesis of the ankle joint was successfully carried out in another case.

It was stated in a previous report to the Corporation that the food service in hospitals, and particularly in sanatoria, must be recognised as having an extremely important remedial function. At that time it was indicated that all the processes involved in catering should be regarded as a main department of the hospital under a qualified dietitian. Undoubtedly, such an appointment would co-ordinate the food service and should make the diet not only nutritionally balanced but also varied and appetising. With the food situation as it is to-day the appointment is most necessary if the required personnel can be found.

A point which has been given insufficient thought in providing a first-class food service is the salary of the trained kitchen and assistant kitchen superintendents. National scales have been laid down for nursing and domestic staff by the Scottish Nurses' Salary Committee and the Joint Industrial Council respectively, but the salaries of kitchen superintendents have not been considered: taking into account the responsibility attached to these posts and the present wages and conditions of employment of domestic staff, the scales laid down by the Corporation are quite inadequate, e.g., the wages (including overtime) of a cook are considerably in excess of the salary paid to the trained assistant kitchen superintendent. The existence of such anomalies does not promote contentment, nor is there any incentive for girls to train in order to become more efficient in their work. In addition, the Corporation should realise that it is extremely difficult to obtain trained kitchen staff, and probably one of the main reasons is the lack of financial inducement. A request was made some time ago for improved kitchen equipment, but this has had to be postponed owing to the shortage of materials; no doubt it will receive sympathetic consideration as the supply position eases.

During the year certain structural alterations agreed to by the Corporation have been either completed or are nearing the stage of completion. Glass screens and doors cover the open fronts of the East and West Pavilions. The new steam boiler and economiser has been installed. The six sputum sterilisers have been delivered but have not been assembled. An order has been placed for a mobile cinema projector which is due to be delivered at the time of writing this report. Certain work agreed to by the Corporation has not been completed owing either to the shortage of materials or labour. The installation of crockery sterilisers, hot plates, bedpan sluices and

gas rings for the modernisation of the East and West pavilions fall into this category; an endeavour will be made to have these items completed as soon as possible. The provision of central electricity from the Grampian Electricity Supply Coy. is still at the stage of discussion, although there appears to be reasonable hope that this will not be delayed much longer. Every effort is being made to have this change-over hastened as it is absolutely necessary before the Sanatorium can instal a new X-ray plant, which is urgently required. No positive move has been made to provide improved laboratory facilities; it has been thought wise to delay until the Regional Hospital Board has commenced to function so that it may be integrated into any new scheme.

During the year three trained nurses, including one male nurse, completed the examination for the Certificate of the Tuberculosis Association. In addition, one probationer nurse and nine male nurses completed Part I. of the examination, and four male nurses completed Part II. of the examination and obtained the Certificate.

Thanks are due to numerous concert parties, who, during the year, provided excellent entertainments for the patients; these fulfil an important function in the Hospital. The Sanatorium is indebted to Councillor Thoms for arranging entertainments and for his un-failing interest in the Institution.

On the retirement of Dr John H. Hunter, Chief Tuberculosis Officer to the City of Dundee, subscriptions were invited from all interested to provide a retiring testimonial, which, at Dr Hunter's express request, was to be used for the rehabilitation and welfare of patients and staff at Ashludie Sanatorium. A very gratifying total of £740 was raised and a committee appointed, consisting of Dr John H. Hunter, the Medical Superintendent, Dr J. D. Saggar, Mr R. H. Barnett, and Mr A. Carmichael, to administer the testimonial, which is known as the "Dr John H. Hunter Fund." The Corporation agreed to recognise the Committee officially and allow money to be spent within the Institution, subject to obvious provisions. The first venture of the Committee was to provide a "shop" at the Sanatorium; this was officially opened on 19th October, when there was a display of various handicrafts completed by the patients. The Committee have also purchased a second-hand army lorry, with which it is hoped to teach patients motor mechanics and driving as an aid to rehabilitation. It is anticipated

that, in the near future, the appointment of a diversional therapist will be considered. As indicated in the last report, this form of therapy is a real need, and would be of very considerable benefit to tuberculous patients where a state of anxiety frequently accompanies the physical disease. Patients who have had some light handicraft work to perform while in bed, particularly if the work is of a creative type, find the readjustment to their disease and new environment much less difficult; added to this, the patient has a creative hobby at his disposal after discharge when the whole design of his life must be modified and the occupying of leisure time would become difficult without an interesting recreation. A small amount of handicraft work is carried out at Ashludie, but as it is conducted by untrained people scope is limited and therefore interest is difficult to maintain.

In 1947 a full-time painter was appointed to the Sanatorium. This appointment will make a considerable difference to the Institution when eventually the very considerable amount of work has been overtaken; no painting had been done since the beginning of the war, so that the interior, and particularly the exterior, of nearly all buildings are in dire need of painting.

I have to acknowledge, with thanks, the loyal co-operation of all members of the staff during the year. To the more senior members my particular thanks are due, for on them have fallen increased responsibilities associated with acute staffing difficulties and severe rationing restrictions.

It would not be right in this, the last full report, to fail to acknowledge the support which I have received from all members of the Hospitals and Special Schemes Sub-committee, who have shown at all times sympathetic interest in the affairs of the Sanatorium. Again, I should like to place on record my appreciation and gratitude to the Medical Officer of Health for his inspiring guidance and valuable advice in the numerous problems which have arisen during the nine years I have been associated with the Sanatorium.

D. H. SMITH,
Medical Superintendent.

DENTAL REPORT

Year Ending 31st December, 1947

	In-Patients.	Staff.	Total.
Inspections,	333	31	364
Requiring Treatment,	194	31	225
Treatment — Initial,	122	40	162
Treatment — Return,	263	61	324
Extractions — Permanent,	202	16	218
Extractions — Temporary,	1	—	1
Fillings — Permanent,	212	89	301
Fillings — Temporary,	—	—	—
Other Operations,	201	27	228
Scaling,	32	15	47
Dentures,	41	—	41
General Anæsthetic,	1	—	1

In-Patients:—

Dentures Repaired.

4

Orthodontic Cases.

Consultations,	1
Impressions,	8
Appliances Fitted,	2
Adjustments,	29

DAVID A. FINLAYSON,
Senior Dental Officer.

DUNDEE MENTAL HOSPITAL

Report by Dr A. ALLAN BELL

I have the honour to submit the Annual Report of Dundee District Mental Hospital, Westgreen, for the years 1947 and 1948, ending 15th May.

The number of patients on the Hospital Registers on 15th May, 1946, was Certified 573 (299 men and 274 women), Voluntary 1 man, and on 15th May, 1947, Certified 533 (273 men and 260 women), Voluntary 6 (4 men and 2 women).

During the year there were 74 Admissions, 66 Discharges and 43 Deaths. The total number under care and treatment was 648 (330 men and 318 women) and the average daily number 555.4 (287.1 men and 268.3 women).

Patients evacuated from Stirling District Mental Hospital, Larbert, numbered on 15th May, 1946, 104 (45 men and 59 women) and on 15th May, 1947, 56 women.

During the year there was one Larbert Admission (female) and four Deaths (females). All of the 45 male patients were returned to Stirling District Mental Hospital on 29th November, 1946.

The Service Patients, etc., maintained by the Ministry of Pensions as Private Patients numbered 15 at the beginning and at the end of the year, 17. One Private Patient is also a Special Exchequer Grant Patient.

One Voluntary Male Patient was resident on 15th May, 1946. During the year 7 Voluntary Patients (4 males and 3 females) were admitted, and one Voluntary Male Patient left and one Voluntary Female Patient died, making on 15th May, 1947, a total of 6 Voluntary Patients (4 males and 2 females). Stirling District Mental Hospital Voluntary Patients on 15th May, 1947, numbered one female patient.

The Rate Aided Patients on 15th May, 1947, are chargeable as follows:—

	M.	F.	Total
Dundee,	249	249	498
Angus	1	2	3
Other Districts ...	5	9	14
	<hr/> 255	<hr/> 260	<hr/> 515

ADMISSIONS.—The types of mental disorders among the certified admissions comprised chiefly:—

Psychogenic Psychoses:—Schizophrenia, 18 cases; Manic Depressive Psychoses, 10 cases (acute mania, 6, and acute melancholia, 4); Involutional Melancholia, 8 cases; Paraphrenia, 8 cases; and Epileptic Psychoses, 3 cases.

Physiogenic Psychoses:—Acute Confusional Psychoses, 7 cases (Puerperal 1); Pre-senile Psychoses, 3 cases; Senile Psychoses 2 cases; Mental Deficiency, 8 cases.

The bodily health of these new admissions was recorded as good in 56 cases, fair in 5 cases and poor in 6 cases.

DISCHARGES.—The cases discharged numbered 66 (33 males and 33 females) (including Voluntary Patients) of whom 60 were discharged “ recovered ” and 6 “ relieved.” The number of those recovered was 81.1% of the number admitted while those relieved amounted to 8.1%, making the total discharge rate 89.1% of the admission rate.

DEATHS.—Forty-three patients died during the year (20 men and 23 women). The death rate for the year calculated on the average number resident was 7.7%. The deaths were all due to natural causes, which were verified by Post-Mortem examination in 17 cases, being those in which the relatives granted permission.

The causes of death were as follows:—Diseases of Cardio-vascular system, 13 cases; Acute Diseases of Respiratory system, 11 cases. Pulmonary Tuberculosis, 8 cases; Senility, 5 cases; Organic Brain Disease, 3 cases; Non-Pulmonary Tuberculosis, 1 case; Chronic Cystitis, 1 case; Carcinoma, 1 case.

Senility was a definite contributing factor in an additional 5 of the above cases.

Of the patients who died, 1 was under 20 years of age, 4 from 20-30, 4 from 30-40, 6 from 40-50, 12 from 50-60, 9 from 60-70, 4 from 70-80 and 3 from 80-90.

Amongst Stirling District Mental Hospital patients, 4 died, the causes of death being as follows:—Diseases of Cardio-vascular system, 1 case; Carcinoma, 1 case; Senility, 1 case; and Pulmonary Tuberculosis, 1 case.

Of the patients who died 1 was from 40-50, 1 50-60 and 2 from 70-80.

The number of patients on the Hospital Registers on 15th May, 1947, was Certified 533 (273 men and 260 women), Voluntary 6 (4 men and 2 women) and on the 15th May, 1948, Certified 540 (277 men and 263 women), Voluntary 12 (7 men and 5 women).

During the year there were 97 Admissions, 52 Discharges and 32 Deaths. The total number under care and treatment was 636 (323 men and 313 women) and the average daily number 542.2 (276.8 men and 265.4 women).

Patients evacuated from Stirling District Mental Hospital, Larbert, numbered on 15th May, 1947, 56 female patients and on 15th May, 1948, Nil. During the year there were 2 female discharges, while the remaining 54 female patients were transferred to Stirling District Mental Hospital on 10.12.47.

The Service Patients, etc., maintained by the Ministry of Pensions as Private Patients numbered 17 at the beginning and at the end of the year 17. One Private Patient is also a Special Exchequer Grant Patient.

Six Voluntary Patients (4 males and 2 females) were resident on 15th May, 1947. During the year 15 Voluntary Patients (9 males and 6 females) were admitted, and 9 Voluntary Patients (6 males and 3 females) left, making on the 15th May, 1948, a total of 12 Voluntary Patients (7 males and 5 females).

The Rate Aided patients on 15th May, 1948, are chargeable as follows:—

	M.	F.	Total
Dundee,	251	249	500
Angus,	2	3	5
Other Districts, ...	6	11	17
	<hr/> 259	<hr/> 263	<hr/> 522

ADMISSIONS.—The types of mental disorders among the certified admissions comprised chiefly:—

Psychogenic Psychoses:—Schizophrenia, 19 cases; Manic Depressive Psychoses, 17 cases (acute mania 11 cases and acute melancholia 6 cases); Involutional Melancholia, 11 cases; Paraphrenia, 3 cases; Paranoia, 1 case and Epileptic Psychoses, 3 cases.

Physiogenic Psychoses:—Acute Confusional Psychoses, 7 cases; (Puerperal 1); Dementia Paralytica, 4 cases; Alcoholic Psychoses, 1 case; Pre-senile Psychoses, 1 case; Senile Psychoses, 7 cases; Post Encephalitic Psychoses, 1 case; Mental Deficiency, 7 cases.

The bodily health of these new admissions was recorded as good in 59 cases, fair in 16 cases and poor in 7 cases.

DISCHARGES.—The cases discharged numbered 52 (24 male and 28 female) (including Voluntary Patients) of whom 44 were discharged “recovered” and 8 “relieved”. The number of those recovered was 45.3% of the number admitted while those relieved amounted to 8.2%, making the total discharge rate 53.6% of the admission rate. Of the Stirling District Mental Hospital Patients 1 was discharged “recovered” and 1 “relieved”.

DEATHS.—Thirty-two patients died during the year (15 men and 17 women). The death rate for the year calculated on the average number resident was 5.9%. The deaths were all due to natural causes, which were verified by Post-mortem examination in 10 cases, being those in which the relatives granted permission.

The causes of death were as follows:—Diseases of the Cardio-vascular system, 8 cases; Acute Diseases of Respiratory system, 5 cases; Senility, 4 cases; Pulmonary Tuberculosis, 4 cases; Dementia Paralytica, 2 cases; Carcinoma, 2 cases; Organic Brain Disease, 3 cases; Gastro Intestinal Disease, 1 case; Status Epilepticus, 2 cases; and Post Leucotomy Debility, 1 case.

Senility was a definite contributing factor in an additional 4 of the above cases.

Of the patients who died 1 was under 20 years of age, 3 from 20-30, 2 from 30-40, 2 from 40-50, 4 from 50-60, 11 from 60-70, 5 from 70-80, and 4 from 80-90.

No deaths were recorded amongst the Stirling District Mental Hospital Patients.

GENERAL ADMINISTRATION.

Shortage of Staff.—The main post-war problem in the administration of the Hospital has continued to be the shortage of Nursing Staff, so that instead of our pre-war figure of 60 Nurses, we have now been reduced to 18 permanent members. However, in May, 1947, a Shooting Brake was provided with accommodation for 9 people, which consisted of an ex-army vehicle on which was constructed a new body. This soon proved itself to be eminently successful, and within a short period was transporting approximately 50 part-time Nurses and about 24 part-time Domestic Staff daily. This necessitated 9 or 10 runs being made into the City and caused the vehicle to be on the road from about 5.30 a.m. to 10.30 p.m. every day except Sunday. The signal success of this enterprise was due to the fact that the part-time staff were collected at their own houses so that the Hospital could benefit from the whole of the time they could spare from their own domestic duties, while they themselves could reach the Hospital in all weathers with the minimum of inconvenience.

Almost half of the part-time Nurses are fully trained certificated mental nurses who were employed in the Hospital before they were married and it can be realised what an asset they have been to the over-worked and exhausted members of the permanent staff. The remainder who have had no previous experience in mental nursing have been designated Nursing Helpers and have proved themselves to be all that could be desired in their careful, sympathetic, motherly handling of the patients and in their amenability to the Hospital routine. Owing to the services of these part-time nurses it has been possible to reduce the working hours of the female nursing staff from 60 to 54 hours per week and to allow them to have their complete holiday period which the exacting nature of

their work makes imperative. It has also been found necessary on the male side to obtain the services of several Ward Orderlies, as there have been very few additions to the permanent staff within the past two years.

Although the part-time nurses are essential and invaluable at the present time and will probably comprise a permanent part of the nursing staff in the future, it should be borne in mind that they are only providing a temporary answer to the shortage problem as there are practically no nurses entering the Service for training to replace the older ones, as is corroborated by the fact that only two student nurses joined our Hospital within the last two years, while two others left the Service. While the scope and variety of a mental nurse's duties should be broadened within the compass of a complete Mental Health Service, as indicated in my last report, it is extremely desirable in the meantime to improve their local amenities as far as possible and to provide an adequate transport system for their use to the nearest centre of recreation and culture. This transport, unfortunately, cannot be provided in our own Hospital by means of our new Shooting Brake which is more than fully occupied conveying the part-time members of the Staff.

It is to be regretted that the Shooting Brake has not been able to stand up to all its duties and a considerable amount of inconvenience and dislocation have been caused by many mechanical faults developing, especially wheel rims splitting. However, within the last few weeks we have obtained an old Public Assistance Ambulance which, with a few alterations, should prove a serviceable and reliable vehicle, able to transport a greater number of staff on each journey, while it will allow of the over-worked Shooting Brake receiving a complete overhaul periodically.

MENTAL AND PHYSICAL TREATMENT.

The general health of the patients has been maintained at a satisfactory level and it is felt that those who are acutely ill are now receiving the nursing attention which they require.

No serious accidents have occurred which again reflects the care, vigilance and devotion to duty of all the members of the Nursing Staff, while none of the part-time helpers have done anything to jeopardise the safety of the patients.

The Admission Rate is still a little higher than during the war, but this is not due to an increase in any of the particular categories of patients. Unfortunately, many young low grade defective children are still being admitted, which is contrary to all that is best in mental therapy, as indicated in a previous report.

A gratifying feature, however, is the number of Voluntary Patients who have entered the Hospital despite the fact that the lay-out and structure of the building do not allow them being in any way separated from the permanent inmates, or of providing them with suitable individual rooms. As it is hoped to attract a still greater number of Voluntary Patients in the future, it is to be much regretted that the war period prevented the erection of the Admission Hospital of about 100 beds as had been intended, so that recent and less severe cases of mental illness could be discharged without requiring to enter the main Hospital premises.

It is gratifying to note that the Discharge Rate has been fairly high, probably due to the newer methods of treatment which are now being adopted in dealing with certain kinds of mental disorder. Again, it must be noted that the Death Rate has been reasonably low throughout the period, a fair proportion of the deaths occurring in elderly patients.

In addition to the usual Psycho-therapeutic measures which are constantly employed, we have continued to make use of a modified Somniphaine Therapy for acute restless patients with good results. Electric Convulsion Therapy has also continued to be extensively used with exceedingly gratifying results in menopausal depression and early cases of Schizophrenia. Throughout the two year period 120 cases have been treated by this method of whom 47 patients have been discharged as the result. It should be noted that the majority of the Voluntary Patients already mentioned entered the Hospital in order to receive this form of treatment, a completely new stage being reached in the administration of the Hospital, whereby some of those patients, after their discharge, continued to visit the Hospital at intervals for treatment, arriving in the morning and leaving in the late afternoon without requiring to be re-entered in our Hospital Registers.

The operation of Pre-frontal Leucotomy, the details of which were described in the last report, has continued to be performed in Maryfield Hospital under the skilled acumen and intuition of Mr F. R. Brown, with consistently gratifying and encouraging results. These results would be still higher were it not for the fact that the cases of Involutional Melancholia who would certainly benefit from it are nearly all cured by Electrical Convulsion Therapy. Until the present time the operation has been performed on 52 cases, 26 men and 26 women. Of these 19 patients have made a social recovery and are at home, while arrangements are being made for the early discharge of other three patients, while an additional 4 could quite well be at home were the conditions there suitable, while one of them could possibly be self-supporting. The first patient was discharged two years and three months ago and the last one about eight months ago, so that sufficient time has now elapsed to justify our hopes that their improvement will be of a permanent nature. Of the patients who have been discharged 4 or 5 have been able to engage in remunerative employment. The excellency of those results, amounting to 50% social recoveries, can only be properly assessed when it is borne in mind that some of the patients were from 10 to 15 years in the Hospital, while all had been regarded as irrecoverable. Of the remainder of the patients operated upon all have shown varying degrees of improvement except in the case of one or two patients who have not benefited therefrom. We have had no serious complications arising as the result of the operation, while the only death which could in any way be connected with it took place 9 months later.

We now appear to have operated upon all the most eminently suitable patients in the Hospital and will, in the future, in great measure, be limited to the more recent admissions. It is important to note, however, that 52 of our 530 patients were considered suitable for the operation, that is to say 10%, while 5% have made a social recovery, which would be a fair number if applied to the whole country. As we continue to give other older patients the benefit of the operation we cannot hope that the results will prove so high in their case. It should be noted in this connection that of all the first 10 male cases selected, 8 of them have been able to return to their home environment once more. Our latest recovery is an elderly woman of 67 years, who has been in the Hospital for about 5 months, and who had, on several occasions, attempted to commit suicide by jumping out of the window and by strangling herself.

with a stocking, and who was too weak to receive Electrical Convulsion Therapy. She is now cheerful, happy, and smiling, and is eagerly awaiting her early discharge. Another female patient, aged 65, would have already been discharged but for the fact that her sister to whose home she would have gone, has herself required to enter a hospital. This case is the only Voluntary Patient who has had the operation performed, having suffered for several years from depression and periodical headaches, while she also was unsuitable for Electrical Convulsion Therapy.

The usual Recreational and Occupational Therapy were continued throughout the Report period with beneficial results, especially in the re-education and rehabilitation of Post-Leucotomy Patients, in addition to those recovering from acute mental illnesses.

NEW CONSTRUCTION AND REPAIRS.

The Hospital has been maintained in good repair while several corridors and dormitories have been tastefully redecorated. Gas Lamps have been erected at the Attendants' houses, while alterations were made in their electrical equipment. A telephone kiosk was erected by the Artisan Staff, and a telephone has recently been installed for the use of the Nursing Staff in an effort to reduce the feeling of isolation indicated in our last report. The Post Office Authorities are being approached to erect a pillar box and stamp machine within the grounds. Plans are being prepared and estimates will be submitted for the provision of a tennis court for the nurses. Arrangements are being made to have the boundary fences repaired, which were badly damaged during the war time tree felling operations. Negotiations are being carried out with the Grampian Electricity Supply Co., to have a cable taken from the Government built Annexes to the main building in order that a constant supply of electricity would be available so that there could be installed a wireless set in each ward, as authorised by the Sub-Committee. This supply of electricity could also be used for the Electrical Convulsion Therapy apparatus, for driving the necessary outlet fans in the kitchen and for the installation of a Refrigerator.

Mr Barry Cuthill is considering the improvement of the heating in the wooden hut which was erected for the male patients during the first world war so that it might be divided by a partition and form reading and recreation rooms for the male staff who have no

such facilities at their disposal. The corresponding hut on the female side might be considered suitable, with slight alterations, to be a shop and tea-room for the Hospital visitors, staff and patients, and permission for this project will be requested at the next meeting of the Mental Health Sub-Committee.

GARDENS AND GROUNDS

The garden has had a successful year, and provided occupation for a number of male patients. A long anticipated shed for storing fruit and keeping artificial manures is in the course of erection by the Hospital tradesmen. Previously it had been a war-time food centre in one of the City Parks.

The provision of a large motor lawn mower has proved very beneficial, but as it is more and more difficult to find men able to use a scythe, the purchase of a smaller motor mower for long grass and for embankments should be seriously considered.

FARM MANAGER'S REPORT.

Dairy Stock.—During the past two years the number of stock in the herd has been maintained at a monthly average of 315-320 animals. Of that number there has been at all times over 100 cows in milk. The health of the herd has been very good during that time, there having been only one re-actor to the tuberculin test, and the milk stock comparatively free from any mastitis infection. The milk yield during these two years has been satisfactory despite the scarcity of feeding stuffs. Two cows in the herd have now given over 10,000 Gallons each during their lifetime, one 13 years old, the other 14 years old. Rearing young stock has become more difficult and some losses have occurred owing to the very dilapidated condition of the buildings.

Cropping.—The cropping of the farms has been carried out with the aim of providing as much food for the dairy herd as possible. The chief crops besides grass for summer grazing are Hay, Oats, Turnips, Cabbages and Sugar Beet. Enough Potatoes have been grown to supply the needs of the Public Health Hospitals with the exception of Maryfield Hospital.

Buildings.—The Farm Buildings with the exception of the milking byres and dairy, on both Whitelawstone and Gourdie, are in a most dilapidated condition and will soon be unfit for housing and rearing the young dairy stock in healthy condition. Also the most of the farm implements are now exposed to the weather, making them more difficult to maintain in good working order.

Staff.—There have been little or no staffing difficulties, but as most of the staff have had long terms of service, and some of the younger members are or are about to be married the question of housing accommodation arises.

Milk Supplied to Institutions, etc.

16th May, 1946 to 15th May, 1947 — 93,252 gallons.

16th May, 1947, to 15th May, 1948 — 94,338 gallons.

Potatoes and Turnips Supplied to Institutions, etc.

16th May, 1946 to 15th May, 1947 — 220 tons 18 cwts.

16th May, 1947 to 15th May, 1948 — 203 tons 3 cwts.

(Signed) JAMES B. BOYD,
Farms Manager.

STAFF CHANGES

On 6.11.47, the Head Attendant, Mr David Mackenzie, retired from the Service of the Hospital on attaining the age limit after having devoted more than 40 years of his life to the care and treatment of the mental patients from the City. During that long period he saw many changes for the betterment of both patients and staff. He possessed an excellent memory for the details of the illnesses of all the patients who had passed through his hands, and as he kept one well informed of everything pertaining to the patients, his services have been greatly missed.

On 15.10.46 Miss Roy resigned her position as Matron owing to family reasons. As it was found extremely difficult to replace her at the salary scale recommended by the Wheatly Committee, it was decided to appoint a Matron who would be in charge of the male patients as well as the female ones. On 4.11.47 Miss Anna Donald, who had been Assistant Matron in Bangour Mental Hospital, took up duties as Hospital Matron in this capacity.

It is with regret that we have to report the sudden death of Mr J. Berry Whyte who had been visiting dentist to the Hospital for over 10 years. In the meantime, Mr Anderson, one of the Corporation Dentists, is performing his work in a temporary capacity.

We must also record with regret the death on 7.2.48 of male nurse Peter Robertson, who had not enjoyed good health since his return from the Forces on 26.6.46. The death must also be recorded with regret of George McKerran, who had been Hospital Plumber for 20 years, and of John Milne, who had been a member of the Hospital Farms Staff for over 20 years.

It was also learned that James Campbell had died recently, at the age of 94 years. He had retired 10 years previously from his work at Whitelawstone Farm, after an extremely long association with the Hospital, having been the Institution Coachman in pre-motoring days.

CONCLUSION.

Since this is the last report to be submitted to the members of the Corporation owing to the near approach of the appointed day when the Hospital will pass into the control of the Eastern Regional Hospital Board under the National Health Service (Scotland) Act, 1947, it might be appropriate to record some reminiscences and express some hopes for the future. Prior to the Lunacy (Scotland) Act, 1857, the Sheriff had the supervision and control of the available accommodation for mental patients, the Royal Asylums and Private Houses for the private patients and the Poor Houses and Prisons for poor patients. After the above Act the General Lunacy Board was set up, the country was divided into Lunacy Districts, and District Asylums were erected for the poor patients and these were administered by the District Lunacy Boards. Under the Lunacy and Mental Deficiency (Scotland) Act, 1913, the General Lunacy Board was made responsible for the mental defectives and became the General Board of Control, while the District Lunacy Boards became the District Boards of Control. Owing to the long duration of the average mental illness the administration of the Lunacy Laws was closely bound up with the Poor Law and the Inspector of Poor, amongst other things, was responsible for making application to the Sheriff to have poor patients sent to a Mental Hospital. Under the Local Government Act of 1929 the Mental

Hospitals associated with the Cities were taken over by the Corporations, but it was decided not to have a separate Committee to administer the Lunacy Laws, as it was felt that the mental patients could be more closely linked with general medical patients if the mental hospitals were administered by the Public Health Committee. Nevertheless, the lineal descendant of the Inspector of Poor, the Director of Social Welfare, continued to perform all his previous duties and exercised a considerable amount of jurisdiction over mental patients and uneducable mental defectives.

The new Health Service Act, however, severs the last connection between the mental patient and the Poor Law, and all the duties of the Director of Social Welfare will be taken over by the Local Health Authority. This Authority has wide powers under the Act with reference to the prevention of mental illness, and to the rehabilitation and resettlement of patients, after a mental illness, in suitable surroundings and appropriate work, in addition to its many responsibilities and duties towards mental defectives. This offers an excellent opportunity of inaugurating a large section of a complete Mental Health Service by the employment of Psychiatric Social Workers and by the special training of the present health visitors and should go a long way to prevent the occurrence and recurrence of mental illnesses.

It is recommended by the Royal Medical Psychological Association that the Superintendents of the various Mental Hospitals should act as Area Psychiatrists in charge of the out-door clinics and other sections of the mental services in their areas. If Child Psychiatry Clinics were initiated or co-operation carried out with the Child Guidance Clinics already set up by the Education Authority, it would ensure that the remaining part of a complete Mental Health Service was also being established. It is further recommended that the Area Psychiatrist, under the Medical Officer of Health, should supervise the various aspects of the Mental Health Service being carried out by the Local Health Authority, which would thus correlate and integrate the whole service in each area. Thus by harmonious administrative co-operation a Complete Mental Health Service could be built up which would be of inestimable benefit to the community and would prove more attractive to the potential mental nurse of the future.

Under these circumstances, we approach the future of Psychiatry in all its aspects with high hopes and every confidence in the new administration.

The new Act places our Hospital under its fourth administrative body, namely, the Board of Management which will act for the Regional Hospital Board which is itself directly responsible to the Secretary of State. It is to be assumed that the new Board will endeavour to maintain and augment the high standard of care and treatment that has already been established in the Hospital under the jurisdiction of the present Authority.

PERSONAL

I again wish to thank all the members of the Staff for their devotion to their duty and for their unfailing co-operation. After a period of 10 years' service with the Corporation, most of which has been spent during the trying war years and which is now rapidly drawing to a close, I wish to express my sincere thanks to the Medical Officer of Health who has never failed to assist with his ripe experience and mature judgment in whatever administrative difficulty arose, and to the Convener and Members of the Mental Health Committee for their constant support and sympathetic consideration towards whatever was proposed for the benefit of both the patients and the Hospital Staff.

A. ALLAN BELL,
M.B., Ch.B., F.R.F.P.&S.G., D.P.M.,
Medical Superintendent.

MARYFIELD HOSPITAL

Report by Dr W. A. DAVIDSON, Medical Superintendent.

I have the honour to submit the Annual Report of Maryfield Hospital, Dundee, for the year ended 31st December, 1947.

Main Buildings.

The work of sub-dividing one of the ground-floor wards, referred to in last year's Annual Report, was ultimately completed in October. The south ward continues to be known as Ward 7, and it came into use on 28th November for gynæcology patients. On the north side, Ward 13, as it is called, is intended for the in-patient treatment of venereal diseases in women. It has in the meantime had to be utilised for ante-natal patients, and was first put to that purpose on 9th January, 1948. The large numbers of expectant mothers who have booked for admission to Maryfield Hospital makes such full demands on the maternity wards that it is not possible under present circumstances to use them for women in need of ante-natal care. The availability of Ward 13 has been timely.

Owing to the increased volume of midwifery work falling to the Hospital due to the increased birth-rate, it was necessary not only to add beds to the maternity wards but to utilise the ward below Ward 3 for lying-in purposes. This contributed 11 beds and came into use for some weeks on 14th March. Mothers and their babies were transferred there from the maternity wards on or about the 6th day of the puerperium until ready for discharge.

A very notable occurrence was the evacuation of chronic men and women patients from the pavilion leased from the Social Welfare Department at the beginning of the war. This took place in December, the female cases being taken to Ward 6 on the 12th December and the male patients to Ward 12 (below Ward 3) a week later. These wards of 32 and 11 beds capacity respectively represent improved conditions for the patients.

Minor alterations to the attic rooms, as recommended in a Report concerning the X-ray premises submitted to the Committee in January, 1946, were completed during the year. They involved

painterwork, improved artificial lighting and the provision of a fire-escape staircase. Three attic rooms were accordingly converted to a sewing department, and the staff moved into them on 21st November. By this move two rooms were vacated adjacent to the X-ray department with which they will be incorporated when structural alterations have been carried out.

Last year I reported the delivery and issue to the wards of modern bedsteads of pleasing finish. The first consignment of metal bed-tables with oak tops and mounted on wheels reached the Hospital in June. They match the colours of the beds, and the total number ordered has been received and issued. These tables are much appreciated by the patients, and have replaced the small wooden tables originally in use, which were unstable and inadequate.

I am glad to report that work was begun on 26th May to adapt the cloakroom next the dining-rooms and to provide in it a group of three wash-hand basins and two lavatories. The work dragged on for some time, but was ultimately completed. This is the only sanitary annexe in the Main Buildings for the majority of the nursing staff, and it is centrally situated.

Apart from Wards 7 and 13, all the other wards, corridors and staircases in the Main Buildings are in urgent need of painting. A number of wards and the operating theatre suffer from an inadequate pressure of water, and the introduction of larger feed pipes is now awaited. The hot-water supply is also inadequate, and the kitchen ranges which provide the heat are inefficient.

Nurses' Home.

Reference was made in last year's Annual Report to the need for having the Home painted. Unfortunately the Sub-Committee have not yet paid their intended visit of inspection, but the monthly visiting committee saw the conditions in March, 1948. As a result it is now proposed to ask for borrowing powers to allow this very necessary work to proceed.

The Hall was the venue of three important meetings during the year. In May it housed the annual meeting of the Scottish Health Visitors' Association, and in September the Student Nurses' Rally of the Royal College of Nursing. At the latter function the Countess

of Airlie was Chairman, and the proceedings included a speech-making contest for the Greig Cup on the subject, "What is a Successful Life?" The third occasion was in December, when members of the British Medical Association met to hear an address by Dr Harold Waller, of the British Hospital for Mothers and Babies, Woolwich, on lactation methods. Practical demonstrations were given later in the maternity department.

Maternity Department.

More confinements (1185) occurred in Maryfield Hospital during 1947 than in any previous year. Details of the work performed are submitted in an appendix to this Report, and comment is made on the pressure on accommodation. In March the number of beds in the two maternity wards was increased to 24 each, and for some time overflows were dealt with in an 11-bed ward in the Main Buildings. So far from being able to report an increased number of patients remaining in Hospital for 14 days after delivery, there was a period in April and May when mothers had to go home on the 9th day.

Hopes of establishing a small unit for premature infants had again to be sacrificed this year as even one room for this purpose could not be spared. The need for such accommodation was, of course, prominent as 97 live premature babies were born compared with 67 in 1945.

X-Ray Department.

The proposed alterations to the X-ray department alluded to last year were not begun in 1947, but at the time of writing there are signs that the work is about to commence. As the new apparatus had been on hand for some time in storage it was decided towards the end of the year to arrange for the temporary installation of the diagnostic equipment.

Dental Services.

Last year I referred to the increased scope of dental examination and treatment that had become available to patients and staff. The electric dental unit and chair were installed in the emergency (Government) operating theatre on 18th November, where all practical dentistry is now carried out. Ante-natal patients are seen by the dentist in the North-East Block.

At the request of St Andrews University certain facilities have been placed at the disposal of Professor A. D. Hitchin, Dean of the Dundee Dental Hospital and School. These allow him to admit difficult types of dental cases to the Hospital for operation by himself. Weekly operating sessions have now commenced, the first being on 3rd July, and usually two patients are dealt with on these occasions. The operations, being of a major nature, are performed under general anæsthesia and are of teaching value to the post-graduate dentists who attend to observe them.

East House Medical Services.

Medical attendance on the inmates of East House and of the asylum wards continues to be given by the medical officers of the Hospital. In the course of the year 1,255 consultations were made, and 35 men and 33 women were admitted to Maryfield for treatment.

Dietary.

As high a standard of dietary as possible continues to be made available to patients and staff and complaints are infrequent. The range of food service equipment mentioned last year has not yet been obtained, but the Committee approved prices in March, 1948. One invaluable item of equipment did, however, become available just before Christmas, and that was a refrigerator of 25 cu. ft. capacity. While this is hardly large enough for the Hospital requirements its availability is of considerable advantage for the temporary storage of proportions of perishable foodstuffs.

Laundry.

Laundry work formerly undertaken by a local private firm was transferred on 19th September to a laundry in Alyth. A small portion of this work continues to be done at East House.

Staff Changes.

It was with regret that the resignation of Miss M. A. Noble, Matron, was received by the Public Health Committee on 15th December. This was occasioned by her appointment to a similar post at Stobhill Hospital, Glasgow, and she left Dundee on 29th February, 1948. Before leaving, Miss Noble received a presentation from members of the staff at a gathering in the Nurses' Home. The new Matron, Miss J. M. Brannen, took up duty on 1st March, 1948, having been promoted from the rank of senior assistant matron.

On 25th January it was learned with regret that Miss E. W. Christie, former Matron of the Hospital, had died.

After 30 years' service as part-time pharmacist, Mr John Anderson, M.P.S., relinquished his connection with Maryfield on 31st May. Mrs Burns, M.P.S., left for domestic reasons on 5th September and was succeeded by Miss A. Allardice, M.P.S., as single-handed pharmacist.

Miss Mitchell, M.S.R., left on 21st August to take up a similar appointment in Kenya. So far another radiographer has not been engaged.

The post of dietitian food supervisor also changed hands by the resignation of Miss Elizabeth D. Taylor on 26th July and the appointment of Miss C. C. Flanders on 22nd September. Miss Taylor has since taken up the post of dietitian at the Royal Infirmary, Dundee.

The death of Dr W. L. Kinnear, pædiatrician to Maryfield, occurred on 15th May, and his absence is very widely regretted.

Professor D. R. Dow, Anatomy Department, University College, very kindly allowed his assistants, Drs Robertson and Keith Milne, to lecture to the student nurses in surgery and anatomy respectively. Their services were much valued.

Nursing Staff.

The number of enrolments of student nurses fell to 41, while 17 resigned during their first year of training. This is not such a good net result as in 1946, when the figures were 47 and 16 respectively. Problems of staffing have therefore been prominent again this year, but with careful management and loyal co-operation from the staff these were surmounted. During the spring a number of midwifery cases were accepted for confinement to relieve the Royal Infirmary, and the Medical Officer of Health came to the assistance of the Hospital by seconding four unqualified health visitors for the months of April and May. Their help was greatly appreciated and enabled Maryfield to undertake this unforeseen burden of increased midwifery work.

Details of enrolments and resignations of all grades up to the rank of sister are given below:—

Grade of Nurse.	Enrolments.			Resignations.		
	Eire.	Scot.	Total.	Eire.	Scot.	Total.
1st Year Students, ...	4	37	41	—	17	17
2nd Year Students, ...	—	—	—	—	6	6
3rd Year Students, ...	—	—	—	1	4	5
Staff Nurses,	—	7	7	—	18	18
Staff Midwife,	—	5	5	—	7	7
Sister,	—	7	7	—	4	4
Asst. Nurse (F.), ...	—	9	9	—	1	1
Asst. Nurse (M.), ...	—	4	4	—	1	1
Orderly, F.,	3*	6*	9*	—	4	4
Orderly, M.,	—	—	—	—	6	6
Totals,	7	75	82	1	68	69

*Transferred from the grade of student nurse.

It was not until November that advice was received from the Central Midwives Board that the Hospital had been approved for the purposes of the first part of training for pupil midwives. After this it was necessary to apply for the Board's recognition of lecturers and a midwife teacher, and this was forthcoming by March, 1948. It is hoped therefore to start the first course of instruction by June, 1948, so that by the end of their six months' training the pupils will be ready to sit their State examination in December. If efforts to secure a sufficient number of pupils are successful this will have the effect of relieving for duty in the general wards many student nurses now working in the maternity department.

The proposal to affiliate Ashludie Sanatorium with Maryfield Hospital, mentioned last year, met with the approval of the General Nursing Council on 1st April, 1947. It will, however, be two years before the first flow of student nurses reaches Maryfield from the Sanatorium.

Results similar to last year were obtained in the examination of the General Nursing Council.

Preliminary State Examination.

Subject.	Pass.	Fail.
Hygiene and dietetics,	14	15
Anatomy and physiology,	13	24
Junior nursing,	23	9
Total,	50	48

Final State Examination.

Subject.	Pass.	Fail.
Medicine,	20	5
Surgery,	15	13
Senior nursing,	19	11
Total,	54	29

The second annual prize-giving ceremony was held on 31st December in the Hall of the Nurses' Home with Convener J. Thomson in the chair. On the platform there were also the Lord and Lady Provost and Councillor W. Hughes, O.B.E., Chairman of the Eastern Region Hospital Board. Prizes were graciously presented by the Lady Provost, and among these was a silver medal donated by Councillor Dr J. D. Saggart for the best nurse of the year. This was awarded to Miss Helen Ritchie, S.R.G.N. After tea the guests inspected the Home and the wards.

As in 1946, two evenings were devoted to the annual staff dances, thus allowing every member an opportunity of attending. They were held on 9th and 10th January, and were much enjoyed.

Members of the female nursing staff were off duty through sickness on 61 different occasions, and lost 1,136 working days, averaging 18.6 days per sick nurse. Some details are given below.

Grade.	No. on Staff.	No. off Sick.	Average Days Lost.
1st Year Nurse,	31	27	17.3
2nd Year Nurse,	24	11	25.9
3rd Year Nurse,	10	4	10.0
4th Year Nurse,	7	3	13.0
Staff Nurse,	22	9	13.6
Sister,	18	3	15.6
Asst. Nurse,	13	2	44.0
Orderly,	15	2	24.0

The most frequent causes of illness were tonsillitis (13 cases) and colds (5 cases), a high proportion naturally occurring in first year student nurses. Other causes were skin affections 6, abscesses 4, appendicitis 4, accidents 3, anæmia 3, influenza 3, injection reactions 2, laryngitis 2, and sinusitis 2. Individual cases of the following range of conditions occurred:—Abdominal pain, breast cyst, bronchitis, dental abscess, erysipelas, femoral hernia, gastroenteritis, lumbago, menorrhagia, optic neuritis, pericardial pain, pyuria and thyroid cyst.

Resident Medical Officers.

The full complement of resident medical officers was engaged during the year. Juniors number four, and are engaged for periods

of six months. One senior resident is attached to the maternity and gynæcological wards, and Dr Sheena M. Tosh, M.B., Ch.B., was appointed to this post for a period of twelve months as from 16th January.

Supernumerary Medical Officers.

Maryfield Hospital continues to be used as a training centre for ex-Service medical officers who may be appointed by the University to junior and senior posts. One such junior appointment was made and two senior, the latter ranking as junior specialists in medicine. These positions are each of six months' tenure.

Medical Students.

Facilities at Maryfield Hospital for resident senior medical students continue to be eagerly sought, and a total of 17 were accepted for ward duties under medical supervision.

Part of the final examination in medicine again took place in Maryfield, and qualified doctors presenting themselves for the degree of M.D. were also examined on cases in the wards.

Practical midwifery continues to be undertaken by medical students at the Hospital, and among them they delivered 377 women or nearly a third of all confinements.

Cost of Maintenance of Patients.

The weekly cost of maintaining each patient during the financial year ending 15th May, 1947, was £5 10s 7d, compared with £4 11s 8d in the preceding year. The average daily population during the twelve months ended 15th May, 1947 was 321.49 and for the twelve months ended 31st December, 1947, was 324.249.

Acknowledgments.

I take this opportunity of expressing my sincere thanks to all members of the staff of Maryfield Hospital for their loyalty to duty during the year and for their acceptance at all times of tasks however onerous. I would also record my appreciation of the most helpful advice and encouragement I have received from the Medical Officer of Health.

Appendix.

More detailed accounts of the work performed are given in the Appendix which follows.

W. A. DAVIDSON,
Medical Superintendent.

APPENDIX.

Annual Report for 1947.

Admissions, Discharges and Deaths.

	Men	Women	Boys (under 10)	Girls	Total
In Hospital, 1-1-47,	85	144	13	41	283
Admitted during 1947,	1,124	2,770	892	736	5,522
Total patients treated during 1947,	1,209	2,914	905	777	5,805
Discharged,	913	2,537	855	728	5,033
Died,	232	237	29	22	520
In Hospital, 31-12-47,	64	140	21	27	252
Smallest number of patients,		252	—	31-12-47	
Greatest number of patients,		380	—	28- 3-47	
Bed Accommodation, 360					

Classifications of Conditions Treated.

Bone and joint diseases, 46	Old age diseases,	98
Circulatory diseases, ... 378	Parturition,	1,203
Digestive diseases,	Abortion,	77
Ductless gland diseases, 41	Other conditions of pregnancy,	88
Infancy and malformation—	Respiratory diseases,	447
Healthy children, 1,183	Violence and injury, ...	83
Premature „ 97	Tuberculosis,	113
Other conditions, ... 55	Observation, mental,	161
General diseases,	Skin diseases,	216
Genito urinary diseases, 294	No disease,	96
Infectious diseases,	No diagnosis,	65
Malignant diseases,		
Nervous diseases,		

Operations Performed.

General Surgical—

(a) Under general anæsthesia,	158
(b) Under local anæsthesia,	14
(c) Plasters,	22

Gynæcological and Obstetrical—

(a) Major,	91
(b) Minor,	234

Ophthalmic,	107
Ear, nose and throat,	32
Dental (Professor Hitchin),	19
Leucotomy,	12

X-Ray Department.

Source of subjects X-rayed.	Number of		Number of Films taken.
	Patients.	Staff.	
Maryfield Hospital,	951	101	1,537
King's Cross Hospital,	105	4	171
Dundee Mental Hospital, ...	1	0	1
Public Health Institute, ...	41	0	81
East House,	13	0	15
Central Dental Clinic, Nelson Street,	21	0	91
Orthopædic Scheme,	77	0	124
Baldovan School,	2	0	2
Duncarse Home,	0	1	2
Total,	1,211	106	2,024

In 1946 a total of 2501 films were taken in respect of 1,510 patients and 162 members of staff. The reduced amount of X-ray investigation has been due to the absence of a radiographer since August, thus obliging the radiologist to undertake personally each examination.

Infra-Red and Ultra-Violet Ray Therapy.

No. of Patients.	I.R.	U.V.R.
62	54	8

Dental Services.

	Inspections.	Req. Treatment.	First Treatment.	Return Treatment.	Extractions, P.	Extractions, T.	Fillings, P.	Fillings, T.	Other Operations.	Scalings.	Dentures.	Gen. Anæsthetics.
Staff, ...	64	58	61	44	32	0	130	0	16	14	0	3
In Patients, ...	37	37	38	28	248	0	1	0	16	3	5	31
E. House, ...	19	19	19	2	49	0	0	0	1	0	0	0
A.-Natal, ...	1,062	576	263	124	724	1	128	0	125	89	31	50
P.-Natal, ...	3	3	3	8	0	0	0	0	8	0	3	0
	1,185	693	384	206	1,053	1	259	0	166	106	39	84

Gynæcology.

A total of 256 women were referred to the Hospital by 51 general practitioners for the investigation and treatment of gynæcological conditions. Conditions discovered at examination included:—Abortion 3, normal pregnancy 46, ectopic pregnancy 1,

pregnancy with leucorrhœa 3, with prolapse 1, with cervical erosion 1, and with hyperemesis 1, amenorrhœa 3, dysmenorrhœa 29, menorrhagia 30, leucorrhœa 23, cervical erosion 13, vaginitis 19, prolapse 27, sub-involution 1 and retroversion 3; salpingitis 2, ovarian cyst 6, menopause 3, and sterility 7. Single cases were noted of abscess (labial), Bartholin's cyst, caruncle (urethral), cystitis, dyspareunia, hæmaturia, hormonal dysfunction, papilloma of labium, pseudo-cyesis and secondary syphilis. No defect was discovered in 29 patients.

Ante-Natal Department.

Attendances.—The number of ante-natal out-patients and their stages of pregnancy at the time of their first visit to the clinic were:—2nd month 127, 3rd month 258, 4th month 238, 5th month 191, 6th month 173, 7th month 79, 8th month 66, and 9th month 65.

The large number of first attendances at the 9th month is due largely to a group of expectant mothers referred late in pregnancy from the Royal Infirmary.

A total of 1,197 patients paid 6,251 visits to the clinic, averaging a little over five attendances each.

Complications found at ante-natal examination included:—Albuminuria 29, pyelitis 40, cardiac affections 13, pulmonary affections 8, hyperemesis 15, hyperpiesis 165, disparities 4, dental caries 458, and Wassermann positive 17 cases. These figures total 749.

Version was successfully performed in 72 cases out of 113.

MATERNITY DEPARTMENT

Confinements.

Para	Confinements in Hospital.		Confinements before Admission.
	Single.	Twin.	Single.
1	526	8	2
2	329	5	9
3	145	4	5
4	67	3	1
5	32	—	—
6	16	—	1
7	24	—	—
8	14	—	—
9	2	—	—
10	5	—	—
11	4	—	—
12	1	—	—
Total,	1,165	20	18

A total of 1,185 mothers were therefore delivered in Hospital of 1,205 babies, and a further 18 mothers were admitted with their infants who were born before reaching the maternity department. Over 50 patients were dealt with to relieve the Royal Infirmary. Medical students delivered 377 women under skilled supervision.

Births.	Birth weight.		Birth Weight (B.B.A.)	
	5½ lb. and less.	Over 5½ lb.	5½ lb. and less.	Over 5½ lb.
Live,	96	1,072	1	14
Still,	13	24	2	1
Total,	109	1,096	3	15

The above table shows the number of live and still births (1,223), distinguishing between mature and premature babies.

In 1947 there was the greatest number of confinements ever dealt with by the Hospital. A year ago 966 mothers and 989 infants were cared for, while in 1945 the respective numbers were 688 and 694. This increasing demand upon unchanged resources of accommodation has made it more difficult than ever to develop the ideal of retaining mothers and babies in Hospital for 14 days after normal delivery. As hitherto, some figures on this point are submitted for record purposes.

Days spent in												
Hospital,	1-4	5-7	8	9	10	11	12	13	14	15-21	22-28	29-40
No. of												
patients,	6	11	6	51	891	34	40	19	41	65	13	4

This shows that 1,181 mothers were discharged during the year. Of twelve transferred to King's Cross Hospital with pyrexia, all but one developed this sign within a week of delivery. Not all of these were proved to be true infections, but the lack of isolation facilities in the maternity department precluded the retention of these patients in the maternity department pending diagnosis.

Those who left on the 10th day comprise 75 per cent. of all discharges compared with 72 and 71 per cent. in the two preceding years.

Most of the patients remaining in Hospital after the end of two weeks did so either because of a complication or for the sake of continuing the breast-feeding of their premature infants. Cæsarian section cases were kept for 21 days as a rule, but when the wards were very busy they had to leave anything up to a week earlier.

Complications of Pregnancy and the Puerperium.

Examples of these comprised:—Albuminuria, cystitis and pyelitis, 41; ante-partum hæmorrhage, 9; post-partum hæmorrhage, 12; severe anæmia 5; adherent placenta, 14; placenta prævia, 4; breech presentation, 38; occipito posterior presentation, 14; face presentation, 2; prolapsed cord, 5; high blood pressure, 19; phlebitis, 4; pre-eclamptic toxæmia, 21; post-partum toxæmia, 1; lower uterine sepsis, 10; and mastitis, 13.

Blood transfusions were given to eleven cases including infants.

Intercurrent infections included:—Tuberculosis, 14; syphilis, 27; and gonorrhœa, 4 cases. Four mothers suffered from severe degrees of valvular disease of the heart, and eight infants developed ophthalmia neonatorum.

Surgical Intervention.

Method	No. of Cases.
Forceps delivery,	46
Cæsarian section,	23
Craniotomy,	2

Deaths During Pregnancy and the Puerperium.

Four such deaths occurred in 1947, one woman dying before delivery, one after abortion, and the other two during the puerperium.

Age.	Para.	Stage of Pregnancy.	Certified Cause of Death.
36	10	5th month	Chronic pyelonephritis, chronic microcytic hypochromic anæmia, cardiac failure, acute pulmonary oedema.
22	1*	9th month	Pregnancy, pulmonary tuberculosis (undelivered).
21	1†	8th month	Mitral stenosis, chronic bronchitis, venous congestion with hepatitis, pre-eclampsia, cæsarian section.
21	1‡	7th month	Mitral stenosis, anæmia.

*Undelivered.

†Premature infant died 13 hours after birth.

‡Still-born premature twins.

Deaths of Live-Born Infants.

There were 23 deaths out of 1,183 live births, which is a smaller proportion than one might have expected from the experience in

1946, when the figure was 20 from 948 live births. Fourteen were of 5½ lbs. or less birth weight, and the incidence between the sexes was 13 females to 10 males.

Month of Year.	Sex.	Age at Death.	Birth Weight.	Cause of Death.
Jan.	F.	2 hrs.	8lb. 4oz.	Hydrops foetalis.
„	F.	7 hrs.	2lb. 8oz.	Prematurity, atelectasis.
„	M.	12 hrs.	6lb. 1oz.	Atelectasis.
Feb.	M.*	9 hrs.	1lb. 12oz.	Prematurity.
„	F.*	5 hrs.	1lb. 10oz.	Prematurity.
Mar.	M.	1 hr.	8lb. 13oz.	Asphyxia neonatorum.
„	M.	4 hrs.	2lb. 0oz.	Prematurity.
„	F.	5 days	5lb. 7oz.	Prematurity, atelectasis.
Apr.	M.	2 days	6lb. 8oz.	Bronchopneumonia, partial atelec- tasis.
„	M.	2 days	7lb. 14oz.	Cerebral hæmorrhage.
May	F.	1 day	2lb. 9oz.	Prematurity.
„	M.	3 hrs.	4lb. 8oz.	Atelectasis, prematurity.
„	M.	4 hrs.	8lb. 14oz.	Atelectasis.
June	M.	½ hr.	9lb. 6oz.	Multiple congenital abnormalities, asphyxia.
July	F.	14 days	6lb. 8oz.	Spina bifida.
Sept.	F.	6 hrs.	4lb. 12oz.	Atelectasis.
„	M.	12 hrs.	3lb. 5oz.	Partial atelectasis.
„	F.	4 hrs.	3lb. 0oz.	Asphyxia, atelectasis.
Oct.	F.	6 days	8lb. 6oz.	Intestinal obstruction.
Nov.	F.	3 hrs.	2lb. 12oz.	Atelectasis, prematurity.
„	F.	4 days	5lb. 1oz.	Intestinal obstruction.
„	F.	25 days	4lb. 13oz.	Broncho-pneumonia.
Dec.	F.	2½ days	3lb. 9oz.	Broncho-pneumonia, prematurity.

*Twins.

Still-births.

There were 39 still-births and the broad classification of the registered causes of death was: Foetal defects 11, prematurity 5, cord complications 4, cerebral hæmorrhage 2, maternal toxæmia 2, hydrops 1, and ill-defined causes 14.

Post-natal Department.

The first complete year's experience of the operation of the post-natal clinic occurred in 1947. All mothers are invited to attend it within a month of confinement and submit to examination. Patients are seen at 3 o'clock on Tuesday afternoons, and a total of 305 women were examined, representing 1 in 4 of all confinements. The vast majority were found to be quite normal as was hoped, but it is in the discovery of departures from the normal that the value of the clinic is founded.

Findings were:— Normal, 210; retroversion, 31; subinvolution, 16, cervical erosion, 8; vaginitis, 6; leucorrhœa, 6; backache, 5; high blood pressure, 4; cystitis, 3; debility, 3; varicose veins, 2; incontinence, 2; and mastitis, 2. Single cases were found of abscess, bronchitis, cracked nipples, deficient perineum, dyspepsia, fibroid uterus and urethrocele. Facilities were extended to all women in need of treatment.

Children's Consultation Clinic.

After the death of Dr W. L. Kinnear in May, interim arrangements could not be made to continue the work of this clinic pending the appointment of another pædiatrician. At the time of writing the clinic remains in abeyance.

VENEREAL DISEASES.

Report by Dr D. M. KEAY, Special Medical Officer,
Venereal Diseases Scheme.

The total number of male and female patients presenting themselves for treatment in 1947 was 1,692. This is a decrease of 708 (403 males and 305 females) compared with 1946, when the number of new cases exceeded that for any previous year since the Scheme came into operation. Although its significance is problematical, the decrease is probably a natural post-war occurrence, for a similar sharp fall occurred in 1920-21. The decrease in male patients is also partly accounted for by the small number of members of H.M. Forces attending — 21 compared with 306 for 1946. The figures, however, are still in excess of those for the years immediately preceding the late war.

To the number of new cases there has to be added 1,029 patients who had not completed treatment during 1946; 65 "return" cases; and 36 patients who were "transfers in" from approved Centres. Therefore a total of 2,822 patients compared with 3,398 in 1946, attended the Dundee Treatment Centre during the year.

A diagnostic classification of the 1,692 new cases is as shown on the accompanying table. The figures for 1946 are submitted for purposes of comparison.

	Syphilis.		Gonorrhœa.		Non-Specific Infections		No V.D.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1947,	106	79	247	81	199	61	615	304	1,167	525
1946,	177	123	436	179	251	85	706	443	1,570	830

The new cases were directed to the Centres as follows:—

	Male.	Female.
Medical Practitioners,	140	91
Dundee Royal Infirmary,	13	38
Dundee Royal Infirmary Ante-natal Clinic,	—	52
Public Health Ante-Natal Clinics,	—	52
Other Institutions,	43	55
Traced by M.O. Female Clinic, through female patients,	36	—
Traced by M.O. Male Clinic, through male patients,	—	25
Card S.D.,	6	—
H.M. Forces,	21	—
Voluntary,	908	212
	1,167	525

New Syphilis cases were classified as follows:—

	Male.	Female.
Primary,	55%	10%
Secondary,	6%	37%
Latent in 1st Year,	9%	18%
Later,	15%	9%
Extra-Genital,	—	—
Congenital,	15%	26%

New Gonorrhœa cases were classified thus:—

Acute (duration less than three months), ...	94%	67%
Chronic (duration over three months),	6%	33%

Control of Congenital Syphilis.—Throughout the year 3,096 ante-natal cases were examined and 45 or 1.5% gave positive results compared with 1.59% for 1946.

The following is a detailed list of the number of blood tests carried out at the various ante-natal clinics, together with their results:—

	Wassermann Reaction Positive	Wassermann Reaction Negative	Total
Dundee Royal Infirmary, ...	28	1,820	1,848
Public Health Department, ...	3	156	159
Maryfield Hospital,	14	1,075	1,089
	<hr/> 45	<hr/> 3,051	<hr/> 3,096

Out-Patients.—The total number of “out-patient” attendances during 1947 was 37,464 (19,881 males and 17,583 females), compared with 50,565 (26,943 males and 23,622 females) in 1946.

	Syphilis.		Gonorrhœa.		Non-Specific Infections.		No V.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
1947,	7,347	6,749	8,388	8,207	1,921	669	2,225	1,958
1946,	10,450	9,808	11,204	10,629	2,563	668	2,726	2,517

In-Patients.—The number of cases admitted for treatment in hospital was 44 (11 males and 33 females). Of this number 9 males and 24 females suffered from syphilis, 2 males and 9 females from gonorrhœa. The total number of patient days was 1,060 (268 males and 792 for females).

Arsenobenzol Compounds.—In the course of the year, 2,639 injections of arsenical compounds were administered to male patients and 2,375 to female patients. The corresponding figures for 1946 were 3,668 and 2,774.

Bacteriological Examinations.—Altogether 8,738 specimens were submitted for bacteriological examination, and details of these and also comparison with last year are as follows:—

	1947.	1946.
Wassermann reactions,	3,703	4,436
Special Wassermann reaction,	361	305
Gonococcus Complement Fixation Tests, ...	1,381	1,894
Smears,	3,130	5,046
Cerebro-spinal Fluids,	42	58
Dark Ground Examinations,	121	206
	<hr/> 8,738	<hr/> 12,305

End Results of Treatment.—As a result of treatment 608 patients were discharged as cured; 72 cases of syphilis; 306 of gonorrhœa; and 230 non-specific venereal infections.

At the end of the year, 836 patients were under treatment; 154 were transferred to other centres; 189 defaulted before completion of treatment; and 102 defaulted after completion of treatment but before tests of cure.

Control of Venereal Diseases — Regulation 33B.—Until the early years of the recent war, voluntary methods in the tracing of contacts had proved moderately successful in controlling the Venereal Diseases rate in this country, but by the middle of 1942 the serious rise in the incidence of infections and particularly of syphilis with its necessary lengthy treatment and its ill-effects on the members of the armed forces, compelled the Minister of Health to advise the adoption of stronger action.

Defence Regulation 33B was born on the 5th November, 1942. After a brief life it passed peacefully away on 31st December, 1947, and few regretted its passing.

The application of the regulation was so limited and its operative powers so restricted that it failed to achieve any spectacular result. Administratively it suffered also from the complicated procedure necessary and at a time when Medical Officers of Health were fully engaged and usually busy with other health matters.

Its value as a control measure was freely commented upon and discussed in the report 1941-45.

Under the terms of the regulation, Medical Officers of Health were enabled to exercise powers of compulsion, but only under certain well-defined conditions.

It will be remembered that the regulation was directed against those infected persons who declined to attend voluntarily for treatment and who therefore remained sources of infection and who were known to be spreading disease. Unfortunately the Medical Officer of Health could only bring his powers of compulsion into operation if such a person were named by two or more patients. No official action was permissible on a single return.

For various reasons the regulation was unsatisfactory to administer, but chiefly because few infected persons were willing to name the sources of their infection, and obviously in fewer cases was it possible to prove that a single individual had infected two or more persons—a necessary preliminary to formal action.

While the regulation remained in operation 24 females and 5 males were indicated by two or more patients. All attended for examination and treatment following informal approach, and only one female defaulted.

Although official action was not legally permissible on one notice, efforts were made to trace all contacts. Unfortunately, through insufficient details of address, etc., these efforts were frequently unsuccessful. As was to be expected, this was particularly so in the case of female contacts.

Reference to the accompanying table shows that although the majority of single notices concerned women, of the 201 females notified only 120 were traced, whereas 98 of the 105 male notifications were contacted and 56% of the confirmed female cases lapsed before completion of treatment, compared with 31% of male patients. The high lapse rates occurring in the absence of compulsory powers suggest that the compulsory element, if applicable, would be successful.

	1943.	1944.	1945.	1946.	1947.	Total
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
No. of Single Notices,	13 49	18 69	21 38	33 34	17 11	105 201
No. of Contacted and Examined, . .	11 23	18 33	20 22	32 26	17 11	98 123
Infection Confirmed,	11 20	18 34	19 20	32 26	17 11	97 111
Infection not Confirmed,	— 3	— 4	1 2	— —	— —	1 9
Refused Examination,	— 4	— 3	— —	1 —	— —	1 7
Failed to Trace,	2 22	— 28	— 16	4 8	— —	6 74
			M.	F.		
Defaulted,			31	62		
Transferred,			13	10		
Discharged,			39	14		
Remaining on Treatment,			14	25		
			97	111		

In a circular 5/48 issued by the Ministry of Health, the necessity for continued contact tracing is stressed, and it is pointed out that particulars should be obtained from the patient only by persuasion, and that his or her permission should be obtained for an approach to be made to the person thought to be the source of his or her infection. This has always been our practice, but in the first instance the patient is asked to try to persuade the source of infection to attend for examination.

On the other hand the Union Internationale Contre le Peril Venerien passed a resolution at its general assembly held in Paris in October, 1947, advocating that compulsory powers should be sought nationally and internationally to treat those in a contagious state who refused to submit themselves voluntarily for treatment.

The U.I.P.V. also resolved that the World Health Organisation should help in defining minimum requirements for combating venereal disease in each country and formulate the measures required to trace infective contacts even beyond natural frontiers.

These problems and others related to the control of V.D. — such as general education, provision of specific information and special measures for defaulters from treatment — will be studied by a special committee of the U.I.P.V., which will co-operate with Unesco. Whatever the results of these discussions may be, there now appears to be a general agreement among V.D. Medical Officers in this country that all persons suffering from V.D. in an infectious or transmissible stage should be notifiable. Although, without compulsory treatment, notification falls short of the ideal, it would go a fair way in controlling the incidence and spread of disease.

Penicillin.

The exact value of Penicillin in the management of a case of syphilis still remains obscure. There is general indecision and difference of opinion on the question of dosage, period of administration, the necessity for repeated courses and the amount of adjunct treatment required in any given case.

It can be stated, however, that Penicillin alone will not eradicate the disease, although signs and symptoms may be and indeed often are relieved. It is suggested by some venereologists that Penicillin may yet oust the arsenicals from a large part of the

therapeutic field, whereas Bismuth will continue to hold its own as a safe and efficient adjunct agent. For many years the stock drugs used in the treatment of syphilis have been limited to neoarsphenamine — a powerful anti-spirochaetal substance which is rapidly absorbed and excreted, and Bismuth, which is slowly absorbed and which exerts a steady spirochaeticidal effect between the successive hammer blows of the arseniobenzol preparation. It may be that Bismuth will yet play the same role to Penicillin as it has done for many years to the organic arsenicals.

In the meantime the routine treatment of early syphilis prescribed at this treatment Centre remains as outlined in last year's report.

A case of primary sero-negative syphilis receives 500,000 units of aqueous Penicillin twice daily for 14 days and one "unit" course of arsenic and Bismuth, while a patient in the sero-positive primary or secondary stage receives two "unit" courses of arsenic and Bismuth in addition to the above amount of Penicillin.

Penicillin in oil and wax is never used. Various preparations have been submitted to trial during the year, but injections of high concentrations of Penicillin in oil and wax are not easy to handle. If daily injection in a less viscous medium than is presently available would be equally effective, a great advance will have been made, for it is not easy for the average working patient to attend twice daily for two weeks.

For indoor treatment the Penicillin is administered in divided doses of 100,000 units 3 hourly for 10 days, i.e., a total of 8 mega units.

While it would be unwise to draw any hard and fast conclusions as to the value of Penicillin in the treatment of syphilis, it is, however, proposed to record a few clinical impressions.

Early Syphilis — Primary and Secondary Stage.

As stated above, Penicillin will not cure early syphilis, and the minimum amount of treatment with the drug, together with arsenic and Bismuth advised, is as outlined. If Penicillin therapy is not supported by metallo-therapy a failure rate of at least 30% can be expected. A peculiar phenomenon which has been noted on two

occasions at this Clinic during the past year is the fact that Penicillin may relieve the patient with early syphilis of all clinical evidence of disease, render him serologically negative, yet leave him infective.

Latent and Cardiovascular Syphilis.

The value of Penicillin in latent syphilis is difficult to assess, but it is probably true that most cases should have the benefit of Penicillin therapy, for although it may not do any good it certainly won't do any harm.

The same may be said of cardiovascular syphilis. A few patients with aneurysms and/or aortic regurgitation have been treated, but it is doubtful if any good resulted. However, as Penicillin is known to heal visible lesions it should have some effect on lesions which are hidden.

Neuro-Syphilis.

In syphilis of the nervous system and regardless of the clinical syndrome present, one can expect prolonged and uniform beneficial effects with Penicillin administered alone and by the intramuscular route. Clinically the drug appears to be more effective than any form of metallo-therapy, but in the treatment of General Paresis, artificially induced Malaria in addition to Penicillin appears to afford the patient the best insurance policy. Various observers have stated that, in general, improvement or arrest of the presenting signs and symptoms may be expected according to the extent that these depend on inflammation rather than on degeneration. Our own experience is in agreement with these views.

Pre-Natal and Inherited Syphilis.

Evidence has shown that Penicillin is the drug of choice in the treatment of pre-natal syphilis. While the failure rate in the treatment of early acquired syphilis may be as high as 30%, yet treatment of the pregnant syphilitic woman is almost completely successful in the prevention of pre-natal syphilis. The failure rate in the child is only 1 or 2 per cent. The curious anomaly that a mother with early syphilis is not herself cured with Penicillin while the foetus which may be likened to a saturated solution of the disease is so favourably affected even when treatment is not instituted until the late months of pregnancy, must remain a mystery.

Unfortunately the same outstanding success does not accompany the use of Penicillin in the treatment of the congenitally syphilitic child, although the failure rate is not so high as in the adult with an acquired infection.

BACTERIOLOGICAL SERVICES

By Prof. W. J. TULLOCH.

The work of this Department has been of the same nature as in previous years, but naturally modified to some extent by the conditions brought about by war.

This Department of Bacteriology became, on the outbreak of hostilities, the Scottish East Central Emergency Laboratory and, therefore, a section of the National Health Service under the Commissioner of this area.

Since September, 1939, the policy followed has been to focus attention solely upon the control of communicable diseases and the examination of water and milk supplies, eliminating all that was not essential.

During 1942, however, the prevalence of diphtheria in the City and the surrounding country necessitated an intensive investigation of that malady, especially as that condition presented certain peculiar features during the year under consideration. This intensive examination of diphtheria cases still continues as it may prove valuable in investigating the epidemiology of the disease.

I.—Venereal Diseases.

The total number of tests performed was 16,264, 11,177 being made for the investigation of syphilis and 5,087 being performed for the diagnosis of gonorrhœa. The total number, therefore, shows a decrease on the previous year.

II.—Diphtheria-Swabs, Widal Tests for Enteric Fever, and Sputa for Tuberculosis.

There were 641 swabs examined from suspected cases of diphtheria during 1947, while 108 specimens of blood were submitted for the Widal reaction, and 248 specimens of sputum were tested for the presence of *B. tuberculosis*.

III.—Blood Culture and Examination of Fæces and Urine for Enteric Bacilli.

In suspected cases of enteric, 17 blood cultures, 80 specimens of stool and 65 of urine were examined during 1947.

IV.—Examination of Suspected Tuberculous Material Other than Sputum.

Of these, 567 were investigated during the year under consideration.

V.—Puerperal Sepsis.

The control of this condition involved the examination of 13 specimens of morbid material, a very marked decrease as compared with previous years.

VI.—Examination of Milk for Cleanliness.

The routine examination of milk was continued notwithstanding the conditions brought about by war, as it was deemed wise, if possible, to maintain the scrutiny of this very essential foodstuff.

The samples examined were:—

Certified,	62	samples.
T.T.,	21	„
Pasteurised,	101	„
Standard,	57	„
Undesignated,	173	„
Sterilized,	11	„

On the whole the findings were satisfactory.

In the case of Pasteurised milk the phosphatase and methylene blue tests were applied, and all but 15 specimens satisfied the requirements in respect of them.

VII.—Examination of Milk for Presence of B. Tuberculosis.

The biological test for the presence of B. tuberculosis in milk was resumed during 1943 as a routine procedure. Of 66 samples tested during 1947, 3 proved to be infected with B. tuberculosis.

VIII.—Examination of Water for Cleanliness.

During 1947, the water supply of the City has been under weekly supervision, 588 samples being examined.

In addition, 33 further specimens of water, derived from sources other than the Municipal supply, were tested, making a total of 621 samples.

The examination of specimens of fæces and urine from members of the staff of the Water Department was continued during 1947, 352 such tests being made during the year.

IX.—Bacillary Dysentery.

During 1941 Dr Brodie of this Department elaborated new methods whereby the accuracy of laboratory investigation of bacillary dysentery has been much enhanced.

During 1947, 1,049 specimens from 706 suspected cases of Bacillary Dysentery were examined, and of these 52 proved to be actual cases of the disease.

X.—Meningitis.

In 145 instances primary meningitis was suspected, and of these only 7 proved to be cases of true cerebro-spinal fever; one was infected with *Bacillus hæmophilus*, 5 with the pneumococcus and one with *Streptococcus viridans*.

XI.—Bacillary Food Infection.

There were 13 cases of suspected bacillary food infection during 1947. The infecting organism in the six cases which proved positive was the Aertrycke bacillus.

XII.—Miscellaneous Investigations.

(a) Leptospirosis,	2
(b) Pyrexia of Unknown Origin,	76
(c) Vincent's Angina,	23
(d) Pleural pus,	49
(e) Pus from abscess,	23
(f) Anterior poliomyelitis,	79
(g) Throat swabs for streptococcus hæmolyticus, ...	181
(h) Cultural and biological examination of sputum and gastric lavage,	210
(i) Other examinations,	124

W. J. TULLOCH.

MATERNITY AND INFANT WELFARE SERVICES.

Report by Dr. ANNIE A. FULTON

Registration of Births.

The **birth-rate** for 1947 (23.1) again showed an increase over the rate for the previous year and was higher than that for Scotland as a whole. 4,682 live births were registered in the City during 1947, of which 551 were transferred out and 38 transferred in, giving 4,169 (2,140 male and 2,029 female) registered live births (corrected). There were 365 registered illegitimate births, and after correction for transfers (97 were transferred out and 7 were transferred in) the number was 275 (152 male and 123 female), giving an **illegitimate rate** of 6.6% of all births, compared with 7.1% in 1946. **Still Birth Rate.**—The number of still births registered during the year was 136 and, after correction for transfers, 108 (66 males and 42 females) which is equivalent to 2.58% of the total births.

Year.	Live Birth-Rate.		Illegitimate Rate.		Still Birth-Rate.	
	Dundee.	Scotland.	Dundee.	Scotland.	Dundee.	Scotland.
1943, ...	16.3	18.9	8.5	7.6	38	36
1944, ...	18.0	19.2	9.3	7.9	44	32
1945, ...	16.1	16.9	10.0	8.6	31	33
1946, ...	22.3	20.3	7.1	6.6	33	32
1947, ...	23.1	22.0	6.6	5.6	25	31

Notification of Births.

The number of live births occurring in Dundee during 1947 was 4,673 and the number of still births 136.

No. of live births—

Notified,	4,623	
Unnotified,	50	4,673

No. of still births—

Notified,	135	
Unnotified,	1	136

Total no. of births, 4,809*

No. notified as illegitimate,	295	(6.1%)
No. notified as premature,	243	(5.1%)

Classification of Births According to Nature of Attendance at Confinement.

Domiciliary Cases—

	Notified.	Unnotified.	Total.	Percentage of Births.
Doctor,	17	34	51	1.1
Midwife,	247	0	247	5.1
Doctor and Midwife,	108	0	108	2.2
Maternity Dept., Royal Infirmery (O.P.),	418	0	418	8.7
Unattended,	0	1	1	0.02
	790 (95.8%)	35 (4.2%)	825	17.1

Institutional Cases—

Maternity Dept., Royal Infirmery,	1,657	1	1,656	34.5
Maryfield Hospital, ...	1,214	6	1,220	25.4
Clement Park M.H.,	487	7	494	10.3
Nursing Homes,	609	2	611	12.7
King's Cross Hosp.,	1	0	1	0.02
	3,968 (99.6%)	16 (0.4%)	3,984	82.9
	4,758 (98.9%)	51 (1.1%)	4,809	100.0

The number of domiciliary confinements showed a decrease from the previous year, when 929 births took place at home. In 1947, 3,984 births occurred in institutions, compared with 3,704 in 1946, this increase being almost entirely confined to Maryfield Hospital (228 more) and private nursing homes (41 more).

*The number of births occurring in Dundee during 1947 is not the same as the number registered during the year owing to the period of 21 days given for registration.

Year.	Domiciliary Confinements					
	Total Births.	Percentage Notified	Institutional Confinements.		(including D.R.I. Outdoor Cases).	
			No.	Percentage	No.	Percentage
1943,	3,382	97.2	2,557	(75.6%)	824	(24.4%)
1944,	3,722	97.4	2,793	(75.0%)	929	(25.0%)
1945,	3,365	98.4	2,631	(78.2%)	734	(21.8%)
1946,	4,633	98.6	3,704	(79.9%)	929	(20.1%)
1947,	4,809	98.9	3,984	(82.9%)	825	(17.1%)

It will be seen from the above table that the tendency for confinements to take place in institutions is still increasing. Not only is the proportion of institutional confinements rising but the total number of births is also increasing. During the past five years

there has been an increase of 55.8% in the number of institutional deliveries, although the number of births during the same period has only risen by 42%. The factor most probably responsible is shortage of accommodation, and as housing conditions are not likely to improve for some time the heavy demand for institutional beds is likely to continue. Unfortunately this pressure on maternity beds has prevented the putting into effect our policy, as far as the municipal hospital is concerned, of encouraging every woman to stay in hospital for at least 14 days after delivery. This policy is primarily in the interests of the baby; breast feeding is more likely to be securely established by the end of this period and the mother more likely to be able to cope with her added responsibilities if she is fully recovered and rested after the process of childbirth. If more beds were available it would be an added advantage if it could also be ensured that each woman had a period of rest before, as well as after, confinement because it has been found that the infants of mothers who have had such a period of rest tend to be stronger and heavier and therefore less liable to suffer from congenital debility and weakness.

Still Births*.—The still birth rate for 1947 was 25, compared with 33 for 1946. 136 still births occurred during the year and were analysed as follows:—

Still Births (1).

Sex.		Legitimacy.		Percentage
Male.	Female.	Legitimate.	Illegitimate.	Illegitimate.
84	52	122	14	10.3%

Still Births (2).

Place of Birth.	Total Births.	No. Stillborn.	Percentage.
Royal Infirmary (I.P.),	1,658	67	
Maryfield Hospital,	1,220	39	
Nursing Home,	1,105	22	
King's Cross Hospital,	1	0	
	—3,984	—128	3.2%
Royal Infirmary (O.P.), ...	418	6	
Midwife,	247	0	
Doctor,	45	1	
Doctor and Midwife,	108	1	
Unattended,	1	0	
	— 825	— 8	1.0%
Total,	4,809	136	2.8%

From information obtained regarding notified still births it was found that 3.2% (3.7%) of institutional births and 1.0% (2.6%) of domiciliary births were stillborn. There was no death among non-medically attended domiciliary cases. Figures in brackets give the corresponding percentages for 1946.

The parents of 26 of the stillborn children (15 males and 11 females) were normally resident outwith the city.

*The number of still births occurring during the year is not necessarily the same as those registered during the year.

Still Births (3).

Age of Mother.						
15-20 yrs.	20-25 yrs.	25-30 yrs.	30-35 yrs.	35-40 yrs.	40 yrs. and over.	Unknown.
1	20	27	22	30	7	29

Still Births (4).

Parity of Mother.												
1	2	3	4	5	6	7	8	9	10	11	12	Unknown.
42	24	12	8	5	5	6	2	0	2	2	1	27

Still Births (5).

Employment of Mother During Pregnancy.

Working.	Not Working.	Unknown.
26	83	27

Still Births (6).

Employment of Mother During Pregnancy.

Type of Work.	Up to		Months.					Duration	
	3	4	5	6	7	8	9	not known.	
Nurse,	0	0	0	0	0	0	0	2	
" Finisher,"	0	0	1	0	0	0	0	0	
Cleaner,	0	0	0	0	0	0	0	1	
Jute Workers (all types),	2	0	3	0	0	0	0	5	
Battery Worker,	0	0	0	0	0	0	0	2	
Cashier,	0	0	0	0	0	0	0	1	
Hairdresser,	0	0	0	0	0	0	0	1	
Cook,	0	0	0	0	0	0	0	1	
Agricultural Worker, ...	0	0	0	0	0	0	0	1	
Unspecified Duties,	2	0	2	0	0	0	0	0	
Waitress,	1	0	0	1	0	0	0	0	
	5	0	6	1	0	0	0	14	

Of the 26 mothers working, 11 are known to have stopped work before the end of the 5th month of pregnancy. The period of work of 14 is unknown.

A tabulated summary showing the certified causes of death of the stillborn infants will be found in the appendix.

Infant Mortality.

Year.	Infant Mortality Rate.		Neo-Natal Rate.	Rate from 1-12 Months.	Still Birth Rate.		Still Birth Rate + Infant Mortality Rate.	
	Scotland.	Dundee.	Dundee.	Dundee	Scotland.	Dundee.	Scotland.	Dundee.
1943,	...	65	69	30	39	36	38	101
1944,	...	65	60	29	31	32	44	97
1945,	...	56	57	34	23	33	31	89
1946,	...	54	47	27	20	32	33	86
1947,	...	56	70	33	37	31	25	87

During 1947 there were 291 registered infant deaths (180 males and 111 females) and the infant mortality rate per 1,000 live births was 70 (69.8). Mortality of male infants was 62% in excess of the rate for females as compared with 55% in 1946. One hundred and thirty-six infants (80 males and 56 females) died before reaching the age of one month, and 155 infants (100 males and 55 females) died between the ages of one and twelve months. The neo-natal mortality rate per 1,000 live births was 33 compared with 27 in 1946, and the mortality rate per 1,000 live births between one and twelve months was 37 as compared with 20 in the previous year. The proportion of deaths occurring in the first month was 47% (44% for males and 50% for females), as compared with 58% in the previous year.

Causes of Infant Deaths (See Appendix).

Neo-Natal Deaths.—Eighty (58.8%) neo-natal deaths were ascribed to prematurity, atelectasis, asphyxia or congenital debility compared with 69 (64.5%) in the previous year and 9 (6.6%) to gastro-enteritis compared with 3 (2.8%) in 1946. On the other hand, the number of still births has diminished, and as it is often a matter of chance as to whether a child is born dead or dies soon after birth it is informative to study the still birth and neo-natal mortality rates together. Although the neo-natal mortality rate is higher it will be seen that the still-birth rate has fallen considerably.

Year.	Still Birth Rate.	Neo-Natal Rate.	Total.
1943,	..... 38	30	68
1944,	..... 44	29	73
1945,	..... 31	34	65
1946,	..... 33	27	60
1947,	..... 25	33	58

As in former years the chief cause of death in the neo-natal period was immaturity (see appendix). 38.5% of all the infants who died and 60.3% of those dying in the neo-natal period were considered to be premature, while only 5.1% of notified births were so classed. It must be borne in mind, however, that this estimation of the incidence of prematurity is only approximate because the criterion is birth weight, and facilities for weighing are not always available.

Year.	Total Number of Births.	No. Notified as Premature.	No. of Infant Deaths.	Considered to be Premature.
1943,	... 3,382	177 5.2%	185	42 22.8%
1944,	... 3,722	216 5.8%	181	39 21.3%
1945,	... 3,365	198 5.9%	162	49 30.2%
1946,	... 4,633	322 6.95%	186	94 50.5%
1947,	... 4,809	243 5.1%	291	112 38.5%

Deaths from 1-12 Months.

In 1946 the heaviest cause of death at this age period was pneumonia (39 cases), and there were only seven deaths certified as due to gastro-enteritis. In 1947, on the other hand, there were 30 deaths certified as due to pneumonia (all forms) and 64 as due primarily to gastro-enteritis. The effect of this increase in the number of deaths from gastro-enteritis is sufficient to account to a large extent for the rise in the infant mortality rate as a whole.

Monthly Incidence of Deaths from Gastro-Enteritis (0-12 months).

January,	0	July,	8
February,	3	August,	10
March,	2	September,	8
April,	6	October,	4
May,	5	November,	6
June,	7	December,	14
Total,			73

Gastro-enteritis is usually considered to be a disease of the summer months, but although there was a peak in July, August and September the deaths continued, and the highest monthly incidence of the year occurred in December.

As breast-fed infants are considered to be much less likely to develop infections, especially gastro-enteritis, an investigation was made into the feeding of the infants who died. Of the 71 babies who died of gastro-enteritis and in respect of whom the type of feeding was known 7 (9.9%) were breast-fed up to the time of their death, and 19 (26.8%) had been breast-fed for 6 weeks or more—a period commonly considered to give a good resistance to this disease. The others either had not been breast-fed at all or had not been breast-fed for more than a short time.

As a control, an analysis has been made of the duration of breast feeding in all infants born in 1947 who were visited by the health visitors, and this information is given in the following tables.

	No. of Cases.	Never Breast Fed.	2 wks.	Breast Fed at		
				1 mth.	3 mths.	6 mths.
Babies born in 1947 in whom type of feed- ing was known,	3,943*	462 (11.7)	2,617 (66.4)	1,986 (50.4)	1,215 (30.8)	981 (24.8)
Babies Dying of Gastro-enteritis,	71†	12 (16.9)	42 (59.2)	26 (36.6)	10 (14.1)	7 (9.9)

*In addition 340 were not visited, died, were transferred out of Dundee, or particulars of feeding were not known.

†In addition, in 2 cases particulars of feeding were not known.

It will be seen that 63.4% of the gastro-enteritis babies were artificially fed before they reached the age of one month, compared with 49.6% of the general population and 85.9%, compared with 69.2% before the age of 3 months. 40.9% of the gastro-enteritis babies and 33.6% of the controls were weaned before the age of two weeks, that is, before the health visitors paid the first visit to the home.

The type of feeding of all the infants who died was analysed.

Analysis of Feeding in Infants Who Died Before Reaching the Age of One Month.

	All Infants who Died.	Infants who Died of Gastro- enteritis.	Infants who Died of Pneumonia.	Infants who Died of Marasmus.
Breast,	16 (11.7%)	2 (22.2%)	4 (28.6%)	0 (0%)
Mixed,* ...	4 (3.0%)	2 (22.2%)	0 (0%)	0 (0%)
Partly breast†, ...	5 (3.7%)	0 (0%)	1 (7.1%)	0 (0%)
Artificial, ...	34 (25.7%)	3 (33.3%)	6 (42.9%)	1 (100%)
Not commenced, ...	71 (52.2%)	0 (0%)	3 (21.4%)	0 (0%)
Unknown, ...	5 (3.7%)	2 (22.2%)	0 (0%)	0 (0%)
	135	9	14	1

Analysis of Feeding in Infants Who Died Between One and Twelve Months.

	All Infants who Died.	Infants who Died of Gastro- enteritis.	Infants who Died of Pneumonia.	Infants who Died of Marasmus.
Breast,	5 (3.2%)	1 (1.6%)	2 (6.7%)	0 (0%)
Mixed,*	5 (3.2%)	3 (4.7%)	2 (6.7%)	0 (0%)
Partly breast,† ...	97 (62.6%)	52 (81.3%)	19 (63.3%)	7 (58.3%)
Artificial, ...	48 (31.0%)	8 (12.5%)	7 (23.3%)	5 (41.7%)
Not commenced, ...	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Unknown, ...	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	155	64	30	12

*Mixed feeding means breast feeding complemented or supplemented by artificial feeds, i.e., combination of breast and artificial feeding.

†Partly breast fed means that breast feeding had been carried out for part of the time, but that artificial feeding had been substituted before death occurred.

It is rather striking in the case of gastro-enteritis to note the high percentage of babies who had originally been breast fed but in whom artificial feeding had been substituted. On the other hand, the proportion of babies artificially fed from birth was low compared with the other groups. From these figures it would appear that artificial feeding per se is not so much a matter of importance as the substitution of breast feeding by bottle feeding.

As already pointed out, however, the duration of breast feeding in many of these cases was very short, and only 19 of 71 cases of gastro-enteritis had been breast fed for 6 weeks or more. (26.8%.)

Of 30 babies dying of pneumonia after the age of one month, only 2 were entirely breast fed and only 4 were having breast milk when pneumonia supervened. No infant dying of marasmus was breast fed, but in 7 of the 13 cases artificial feeding had previously been substituted for breast feeding.

There is no doubt of the paramount importance of the part played by breast feeding in the reduction of infant mortality, and it is disquieting to find that in almost one-third of the infant population breast feeding had been stopped before the health visitor had had an opportunity to pay her first visit to the home.

At the end of 1947 Dr Harold Waller (of Woolwich Mother and Babies' Hospital), a well-known authority on breast feeding, was good enough to accept an invitation to come to Dundee, primarily to give a series of talks and demonstrations to health visitors and midwives. His visit, which lasted for five days, was most successful and has already borne fruit in added interest and keenness in the promotion of breast feeding.

Illegitimate Mortality.

		No. of		No.		No. of Infant		No.		Illegit. deaths per 1000	
Year.		Reg. Births	(corrected).	Illegit.		Deaths.		Illegit.		I.M.R.	Illegit. Births.
1943, ...		2,849	241	8.5%	185	30	16.2%	69			124
1944, ...		3,174	294	9.3%	181	20	11.04%	60			68
1945, ...		2,832	282	10.0%	162	24	14.8%	57			85
1946, ...		3,941	281	7.1%	186	24	12.9%	47			85
1947, ...		4,169	275	6.6%	291	26	8.9%	70			95

Among the 275 illegitimate births, 26 infants died before reaching the age of one year, equivalent to an infant mortality rate of 95. The rise in the infant mortality rate for illegitimate births is not so great as the increase in the infant mortality rate as a whole.

		No. Illegit.	Percentage.
Number of Still births,*	136	14	10.3%
Number of Neo-natal deaths,	136	13	9.6%
Number of Deaths (1-12 mths.), ..	155	13	8.4%

Deaths of Children Over One Year.

In addition to deaths of children under one year of age, 38 deaths of children (19 males and 19 females) from 1-5 years were noted by the department. (See appendix.)

Maternal Mortality.

The maternal mortality rate per 1,000 live and still births (corrected for transfers) for 1947 was 0.96, as compared with 2.03 in 1946. (Registrar-General.)

Year.	Total Births.	Maternal Deaths associated with pregnancy or childbirth, including women whose homes were outwith Dundee but who were confined in the City.
1943,	3,382	22
1944,	3,722	21
1945,	3,365	16
1946,	4,633	21
1947,	4,809	14

It is satisfactory to note that after correction for transfers the maternal mortality rate (i.e., the number of deaths of women ascribed to pregnancy, child-bearing or the puerperal state per 1,000 births) for the year is very low and less than half the rate for the previous year.

In 1947 fourteen women died in Dundee during pregnancy or the puerperium, but four did not normally reside in the city.

In the 10 Dundee deaths the attendants at birth were:—

Royal Infirmary (including 2 spontaneous abortions and 1 therapeutic abortion),	7
Maryfield Hospital (including 1 spontaneous abortion),	3
Nursing Home,	0
Doctor and Midwife,	0
Doctor,	0
Midwife,	0
	<hr/>
	10
	<hr/>

A table showing the causes of death of the 10 Dundee women will be found in the appendix.

Notification of Special Conditions.

Year	Puerperal Sepsis.	Puerperal Pyrexia.	Ophthalmia Neonatorum.
1943,	19	19	32
1944,	17	30	27
1945,	8	55	46
1946,	10	48	191
1947,	3 (+ 2 un-notified)	42	148

There is a decrease in the notifications of Puerperal Sepsis, Puerperal Pyrexia and Ophthalmia Neonatorum. The number of notifications received in respect of Ophthalmia Neonatorum is probably lower than the true incidence of the disease. There is still a prevalent idea that only cases of gonococcal origin require to be notified, but Ophthalmia Neonatorum is defined in the Public Health (Infectious Diseases) Regulations (Scotland), 1932, as "any inflammation that occurs in the eyes of an infant within 21 days from the date of birth and is accompanied by a discharge."

Analysis of the 1947 Figures.

Place of Delivery	Puerperal Sepsis.		Puerperal Pyrexia.		
	Full-time Birth.	Abortion	Full-time Birth.	Premature Birth.	Abortion
Royal Infirmary,	0	2	11	2	3
Maryfield Hospital,	0	0	12	1	0
Nursing Home,	1	0	6	0	0
King's Cross Hospital, ...	0	0	0	0	0
At Home, D.R.I. (O.P.),	1	0	7	0	0
Doctor,	0	0	0	0	0
Midwife,	1	0	0	0	0
No Attendant,	0	0	0	0	0
	—	—	—	—	—
	3	2	36	3	3
	—	—	—	—	—
Place of Treatment—					
King's Cross Hospital, ...	3	0	31	3	3
Royal Infirmary,	0	1	0	0	0
Maryfield Hospital,	0	0	0	0	0
Nursing Home,	0	0	2	0	0
At Home,	0	1	3	0	0
	—	—	—	—	—
	3	2	36	3	3
	—	—	—	—	—
Parity—					
Primiparous,	1	1	21	2	1
Multiparous,	2	1	15	1	2
	—	—	—	—	—
	3	2	36	3	3
	—	—	—	—	—
Result—					
Recovery,	3	0	36	3	3
Death,	0	2	0	0	0
	—	—	—	—	—
	3	2	36	3	3

Two cases of Puerperal Sepsis (unnotified) died following abortion.

- (1) Phlebitis and cardiac failure following "miscarriage."
- (2) Peritonitis and paralytic ileus following "abortion."

Ophthalmia Neonatorum.

	Source of Notification		Nature of Attendance at Birth
Doctor,	24	16.2%	1
Midwife,	8	5.4%	11
Doctor and Midwife,	1	0.7%	5
Royal Infirmary (O.P.),	5	3.4%	14
Royal Infirmary (I.P.),	11	7.4%	47
Maryfield Hospital,	26	17.6%	49
Nursing Home,	7	4.7%	21
Maternity and Child Welfare Department,	66	44.6%	0
	148	100.0%	148

Of the 148 notifications received, almost 45% were notified by Child Welfare Department, chiefly by health visitors.

ANTE-NATAL CLINICS.

(a) Local Authority.

Two sessions per week were held at Maryfield Hospital and one per week at Lochee. The number of new cases showed a slight decrease, but there was a rise in the number of attendances. The average number of attendances made by each patient was 5.3, compared with 4.7 in 1946.

	Central (Nelson St.)		Lochee (Ancrum Road)		Maryfield Hospital		Total	
	New Cases.	Total Attend.	New Cases.	Total Attend.	New Cases.	Total Attend.	New Cases.	Total Attend.
1943, ...	146	374	120	490	821	4,174	1,087	5,038
1944, ...	188	462	129	578	751	3,979	1,068	5,019
1945, ...	38	142	175	380	809	4,117	1,022	4,639
1946, ...	0	0	213	944	1,169	5,622	1,382	6,566
1947, ...	0	0	177	1,015	1,197	6,251	1,374	7,266

NEW CASES

Stage of Pregnancy.	Maryfield.	Lochee.	Total.
2nd month,	127	8	135
3rd month,	258	30	288
4th month,	238	24	262
5th month,	191	30	221
6th month,	173	40	213
7th month,	79	30	109
8th month,	66	12	78
9th month,	65	3	68
	1,197	177	1,374
Total attendances,	6,251	1,015	7,266

CONDITIONS FOUND.

	Maryfield. No. of Cases.	Lochee. No of Cases.	Total.
Albuminuria,	29	0	29
Pyelitis,	40	0	40
Hyperemesis,	15	1	16
Hyperpiesis,	165	29	194
Hydramnios,	0	3	3
Malposition,	0	7	7
Disparities,	4	0	4
Cardiac affections,	13	0	13
Pulmonary affections, including Tuberculosis,	8	2	10
Venereal disease,	0	1	1
Wassermann positive, ...	17	2	19
Dental caries,	458	69	527

(b) Provided by Voluntary Bodies.

There is an ante-natal centre at the Dundee Royal Infirmary at which three weekly sessions are held. In 1947, 1,996 women attended this clinic, and they made 13,360 attendances.

Advice Centre for Expectant Mothers.

There was again an increase in the number of women who attended this centre for the purpose of booking for confinement in Maryfield Hospital, and the number who attended only for advice was approximately the same as in 1946.

Attendance for			
Year.	Booking.	Advice Only.	Total.
1943,	805	0	805
1944,	783	0	783
1945,	780	138	918
1946,	1,082	225	1,307
1947,	1,158	239	1,397

Post-natal Clinics.**(a) Local Authority.**

During the year 305 mothers attended this clinic, which is held at Maryfield Hospital. 210 showed no abnormality, and the conditions found in the remainder were as follows:—

Retroversion,	31
Subinvolution,	16
Cervical Erosion,	8
Vaginitis (including Leucorrhœa),	12
Backache, Debility, etc.,	9
Cystitis,	3
Urinary Incontinence,	2
Urethrocele,	1
Hyperpiesis,	4
Mastitis (cracked nipples, etc.),	4
Varicose Veins,	2
Other conditions,	3

(b) Provided by Voluntary Bodies.

A combined post-natal and child welfare clinic is held once a week at the Dundee Royal Infirmary, where mothers are medically examined following confinement and where advice is also given about the care of the child. During the year, 516 mothers attended, making 818 attendances and 940 infants made 1,433 attendances.

Infant and Child Welfare Clinics.

It is satisfactory to record that the attendances at the various clinics are steadily increasing, because it indicates that mothers are appreciating more and more the advice and help which are offered to them at the infant welfare centres. At the same time the standard of the work may be lowered if the attendances are too great. Allowing approximately 300 clinic sessions a year for the six full-time child welfare clinics, i.e., excluding Broughty Ferry, which has a combined child welfare and school session, it is found that as far as babies and children are concerned the average number per session of first and total attendances is 5.5 and 52.5 respectively. As all babies and toddlers attending for the first time and a high proportion of the others are seen by the doctor it seems that we have reached the stage when we must consider duplicating the sessions at some of the centres. During a three-hour session a doctor should not be asked to see more than thirty patients, which would only allow six minutes for each. As the primary function of an infant welfare clinic is to act as a medium for the teaching of good mothercraft and for advising mothers in the proper methods of rearing their children, it will be appreciated that a considerable amount of time should be allowed for this purpose. Too many attendances at one session involve long periods of waiting for the mothers and lead to a sense of frustration on the part of the doctor and health visitors, who realise that they are unable to devote sufficient time and attention to those individual cases most in need of their help.

Expansion of clinic services is also called for because some housing areas are far from the existing centres. It is hoped that a new centre at King's Cross West will be opened in the near future to serve those living in the north part of the city.

Year.	NEW CASES.			ATTENDANCES.			
	Under 1 Year.	Over 1 Year.	Mothers.	Under 1 Year.	Over 1 Year.	Mothers.	Total.
1943,	932	61	18	9,754	4,859	278	14,891*
1944,	947	61	12	8,969	5,542	333	14,744*
1945,	1,028	86	12	10,426	4,566	394	15,386*
1946,	1,377	69	40	10,552	2,486	239	13,277
1947,	1,668	94	188	14,439	2,533	378	17,350

*Includes children examined for admission to nurseries.

ATTENDANCES AT INFANT WELFARE CENTRES.

	Babies.		Children 1-5.		Mothers.				Total.
	New	Re-	New	Re-	New	Cases	Revisits.		
	Cases.	visits.	Cases	visits.	A.N.	P.N.	A.N.	P.N.	
Central, ...	312	2,788	27	560	0	20	0	25	3,732
Lochee, ...	279	1,921	12	346	0	45	0	23	2,626
Blinshall St.,	325	2,366	14	365	0	35	0	40	3,145
Maryfield,	325	2,198	14	353	0	46	0	44	2,980
Ferry Road,	170	1,553	4	340	0	22	0	19	2,108
Caldrum St.,	158	1,096	10	209	0	11	1	29	1,514
Bro'ty Ferry,	99	849	13	266	2	7	1	8	1,245
	1,668	12,771	94	2,439	2	186	2	188	17,350

Analysis of Type of Feeding of New Infants Attending Infant Welfare Clinics.

	Breast.	Mixed.	Artificial.	Partly Breast.	Total.
Males, ...	295	57	498	21	871
Females, ..	313	56	411	17	797
Total, ...	608 (36.4%)	113 (6.8%)	909 (54.5%)	38 (2.3%)	1,668

Condition on Admission to Clinics.

(1) Children Under 1 Year of Age.

Of the 1,668 children under 1 year of age attending the clinics for the first time, 641 (38.4%) showed no disease or congenital defect. The remaining 1,027 (61.6%) showed diseases or defects, classified as follows:—

Diseases of the digestive system,	187
Diseases of the respiratory system,	119
Diseases of nutrition,	30
Diseases of the skin,	297
Diseases of the eye,	120
Diseases of the ear, nose and throat,	19
Congenital defects,	487
Surgical defects,	4
Infectious diseases,	1
Various,	58
	<hr/> 1,322

258 children had more than 1 disease or defect — 224 had 2, 32 had 3, 1 had 4; and 1 had 5.

(2) Children Over 1 Year of Age.

Of the 94 children between one and 5 years of age attending the clinics for the first time, 15 (16.0%) showed no disease or congenital defect. The remaining 79 (84.0%) showed diseases or defects, classified as follows:—

Diseases of the digestive system,	6
Diseases of the respiratory system,	12
Diseases of nutrition,	22
Diseases of the skin,	14
Diseases of the eye,	6
Diseases of the ear, nose and throat,	3
Congenital defects,	22
Surgical conditions,	6
Infectious diseases,	1
	—
	92

15 children had more than 1 disease or defect — 14 had 2, and 1 had 3.

SPECIAL CLINICS.

Dental Clinic.

Babies.			Children 1-5.			Mothers.				
No.	No. Treated		No.	No. Treated		No. Insp.		No. Treated		
Insp.	Init. Visit	Return Visit	Insp.	Init. Visit	Return Visit	A.N.	P.N.	A.N.	P.N.	A.N. P.N.
0	0	0	108	108	21	1,185	4	275	4	38 10

A routine examination by a dentist of all patients attending Corporation ante-natal clinics is carried out, and to those requiring treatment, facilities are offered. A considerable number of expectant mothers took advantage of such treatment. In addition, children in attendance at the child welfare centres and the day nurseries who are in need of dental attention are referred to the dental clinic.

Ultra-Violet Light Clinic.

BABIES.					CHILDREN.				
Cases Carried forward from					Cases Carried forward from				
Year.	New Cases.	Previous Year.	Total Cases.	Total Attendances.	New Cases.	Previous Year.	Total Cases.	Total Attendances.	
1943,	90	5	95	1,517	189	36	225	4,719	
1944,	60	9	69	1,046	179	48	227	3,888	
1945,	38	6	39	539	143	28	171	3,479	
1946,	26	3	26	444	83	26	89	2,111	
1947,	9	3	12	137	26	17	43	548	

Owing to the apparatus being out of order no clinics for ultra-violet ray therapy were held in Broughty Ferry during 1947. In April it was decided to suspend all the artificial light clinics because

of shortage of staff as it was considered that during the summer months, when natural sunlight was available, the time of health visitors could be more advantageously employed on other work. As the shortage of staff still continued these clinics were not re-started in 1947.

Pædiatric Clinic.

During 1947, 54 children under 5 years of age (47 under one year and 13 between one and five years of age) attended this clinic at which a consultant pædiatrician attends once a fortnight to see special cases referred to him from the child welfare clinics. Among the conditions found were:—Marasmus, debility, vomiting, disorders of feeding, pyloric spasm, rickets, convulsions, infantile eczema, erythroedema, bacilluria, asthma, enuresis, behaviour problems, mental retardation, mongolism and hydrocephalus.

Babies.		Children 1-5 Years.		Total.
New Cases.	Revisits.	New Cases.	Revisits.	
41	9	13	8	71

Orthopædic Clinic.

The services of a consultant orthopædic surgeon are available once a fortnight for special cases referred from the child welfare department, and during 1947 18 babies and 136 children between the ages of one and five years were seen. Among conditions found were:—Talipes equino-varus, metatarsus deformity, flat feet, overlapping toes, dislocation of hip, spina bifida, birth palsy, genu varus, genu valgus, post-anterior poliomyelitis, etc.

	Babies.		Children 1-5.		Total.
	New Cases.	Revisits.	New Cases.	Revisits.	
1945,	4	9	58	145	216
1946,	32	41	81	251	405
1947,	18	47	136	251	452

Specialist Eye Clinic.

During 1947 160 children under 5 years of age made 451 attendances compared with 97 children who made 264 attendances in 1946. Amongst conditions found were:—Ophthalmia neonatorum, purulent conjunctivitis, tear duct obstruction, blepharitis and squint.

Specialist Ear, Nose and Throat Clinic.

During 1947 76 children under 5 years of age made 97 attendances. Amongst conditions found were:—Adenoids, mouth breathing, rhinitis, otitis media, etc.

Nursery Clinic.

A clinic is held on four mornings a week, when children are medically examined before admission to a nursery for the first time or are re-examined after an absence from the nursery exceeding three days.

		Babies.		Children 1-5.		Total.
		New Cases.	Revisits.	New Cases.	Revisits.	
1946,	.....	119	174	186	1,182	1,661
1947,	.....	250	585	97	697	1,629

Diphtheria Immunization.

The number of children aged one year or less who completed a course of inoculation again shows a substantial increase both as regards the actual number of children and as a percentage of the total number of children. The following table shows that 84% of children had completed a course of inoculation by the time they reached the age of one year or soon afterwards, and this is a most satisfactory state of affairs. The health visitors who use their influence zealously in the homes to further the campaign for immunization deserve warm congratulations on the conspicuous success of their efforts.

Year.	Total No. of children reaching the age of 1 year.	No. of these com- pleting inocu- lation at the age of 1 year or soon after.		No. completing inoculation before 1st birthday.	
			%		%
1943, ...	2,475	936	37.9	270	10.9
1944, ...	2,476	1,670	67.4	680	27.5
1945, ...	2,787	1,738	62.4	944	33.9
1946, ...	2,439	1,866	76.5	1,100	45.1
1947, ...	3,584	3,023	84.3	2,305	64.3

Whooping Cough Immunization.

This is not carried out on any large scale as the results of whooping cough immunization are not yet sufficiently proved to warrant active propaganda measures being taken. If, however, the mother is anxious to have the child protected and, if the child is young enough to justify an attempt at protection being made, then facilities are available at the infant welfare clinics. The number of children completing a course of inoculation against whooping cough during 1947 was 109, compared with 67 in 1946.

Vaccination.

Facilities are provided at infant welfare clinics for vaccination of babies who attend the centres. During 1947 697 babies were vaccinated at infant welfare clinics compared with 304 in the previous year.

Home Visitation by Health Visitors.

Altogether the health visitors made 59,578 home visits during the year, and of these the number for infants under one year of age was 30,186, and for children between 1 and 5 years 19,694; 5,686 visits were made to expectant mothers. These totals include special visits made to cases of ophthalmia neonatorum, infantile diarrhoea, puerperal fever and puerperal pyrexia, infectious diseases, and for inquiries with regard to housing, maternal deaths and infant deaths.

Year.	Mothers A.N.			Mothers P.N.		
	1st visit.	Revisits.	Total.	1st visit.	Revisits.	Total.
1943, ...	802	97	899	1,819	91	1,910
1944, ...	869	165	1,034	2,250	196	2,446
1945, ...	1,264	2,205	3,469	2,036	249	2,285
1946, ...	1,493	3,566	5,059	3,552	329	3,881
1947, ...	1,432	4,254	5,686	3,826	186	4,012

	Babies.			Children 1-5		
	1st visit.	Revisits.	Total.	1st visit.	Revisits.	Total.
1943, ...	4,702	10,829	15,531	.....	.....	.....
1944, ...	4,811	12,856	17,667	.....	.....	.....
1945, ...	4,733	14,541	19,274	.....	.....	.....
1946, ...	3,641	18,159	21,810	2,439	13,784	16,223
1947, ...	7,008	23,178	30,186	2,893	16,801	19,694

	1st Visits.	Return Visits.	Total.
Ophthalmia Neonatorum,	107	562	669
Infantile Diarrhoea,	16	26	42
Puerperal Pyrexia,	12	22	34
Puerperal Sepsis,	1	0	1
	<hr/> 136	<hr/> 610	<hr/> 746

Year.	Ophthalmia Neonatorum.	Infantile Diarrhoea.	Puerperal Pyrexia.	Puerperal Sepsis.
1943,	198	11	10	1
1944,	227	18	17	22
1945,	264	32	31	11
1946,	1,280	16	38	4
1947,	669	42	34	1

Day Nurseries.

In January, 1947, Flight's Lane Nursery, previously under the management of a voluntary committee, was taken over by the Corporation, and there are now 11 Corporation Day Nurseries in Dundee. They are as follows:—

	No. of Places.
Bellfield Babies' Nursery,	10
Burgess Street Nursery,	40
Dudhope Street Nursery,	40
Fairbairn Street Nursery,	40
Flight's Lane Nursery,	40
Harefield Road Nursery,	40
Isles Lane Nursery,	26
Lilybank Nursery,	48
Linlathen Nursery,	40
North George Street Nursery,	30
Polepark Nursery,	40

In order to meet the demands created by the staggering of hours in industry, in the later months of 1947 the hours of opening of day nurseries were extended. The new hours are from 7 a.m. to 7 p.m., but the nurseries are closed on Saturdays, when only a very small number of children were found to attend.

Training of Nursery Students.

In 1947 there were three training schools for nursery students, namely, Lilybank, Polepark and Dudhope Street Nurseries, and the new Government sponsored scheme of training came into operation in 1947. Three candidates were presented for examination during the year, and all were successful and gained the national certificate.

Miss C. A. Fleming, Superintendent of Day Nurseries resigned at the beginning of the year on being appointed Matron of the Black Watch Memorial Home, and Miss M. H. Lee, from the Glasgow Corporation Nurseries, was appointed as her successor and took up duty in May.

Grateful acknowledgement should be made to the staff for their willing help and co-operation during the year and to the generous donors of gifts and toys for the Christmas parties.

A cheque for £20 from the Lord Provost from the proceeds of a Charities Ball and one for £16 from the pupils of Morgan Academy to be expended on the welfare of the children in the Day Nurseries are also gratefully acknowledged. These cheques have been utilised to buy play material and toys.

The attendances at the Day Nurseries were as follows:—

	Under 2.	Over 2.
Bellfield Babies' Nursery, ...	1,630	.....
Burgess Street Nursery,	2,732	5,443
Dudhope Street Nursery,	2,633	5,381
Fairbairn Street Nursery,	2,534	5,109
Flight's Lane Nursery,	2,465	3,522
Harefield Road Nursery,	2,923	4,582
Isles Lane Nursery,	2,116	3,273
Lilybank Nursery,	5,341	4,020
Linlathen Nursery,	2,960	5,067
North George Street Nursery,	1,551	4,267
Polepark Nursery,	4,117	3,989
	<hr/> 31,002	<hr/> 44,653

NURSERY ATTENDANCES

Year.	Under 2 Years.		Over 2 Years.		Total Attendances.	
	Day.	Night.	Day.	Night.	Day.	Night.
1943,	26,548	1,038	52,531	1,482	79,079	2,520
1944,	37,714	871	67,898	1,507	105,612	2,378
1945,	42,769	139	67,928	247	110,697	386
1946,	35,106	0	57,599	0	92,705	0
1947,	31,002	0	44,653	0	75,655	0

Mother and Baby Homes.

Name of Home provided by Voluntary Assos.	Number of Beds.					Average length of stay.		No. of Girls.
	Ante-natal.	Post-natal.	Total ante-natal and post-natal.	Maternity (excl. labour and isolation).	Cots.	Ante-natal.	Post-natal.	
St Ronan's,	6	12	18	0	11	2 mths.	3 mths.	18
Clement Park,	10	20	30	4	30	2 mths.	3-4 mths.	60

Residential Nurseries and Children's Homes.

Name and Address of Nursery or Home.	Whether Long Stay or Short Stay.	Number of Beds Provided at End of Year.			
		Aged 0-2.	2-5.	Others.	Total.
Duncarse (Local Auth.)	Both	40	40		80
(allocated according to demand.)					
Armitstead Convalescent Home (Vol. Asso.)	Short Stay	18	24	—	42

Midwives (Scotland) Acts.

In the year 1947 25 midwives notified their intention to practice midwifery in Dundee, six as midwives in private practice, and of these 4 undertook domiciliary work.

The midwives in private practice attended a total of 355 births (including 108 cases where the midwife acted as a midwife though a doctor was in attendance)—that is 7.4% of the total births occurring in the City, including still births—as compared with 9.7% in 1946.

The extent of individual practice of each midwife varied. Of the 6 midwives who were in practice during 1947, one had 103 cases, one had 84, one had 52 and one had 8 cases; owing to illness one did not attend any cases, and one acted only as a maternity nurse.

Fourteen visits were paid by the Inspector of Midwives and her assistant to the homes of the midwives. The midwives have sent 91 mothers to attend ante-natal or to private doctors for medical advice and supervision.

Seventy notifications were received from midwives as follows:—

Application for medical assistance—

(a) Mother,	39
(b) Child,	11
Notification of death — (a) Child,	0
Notification of still birth,	2
Notification of artificial feeding,	18

Nursing Homes Registration (Scotland) Act, 1938.

There are 11 nursing homes in the city, of which four are exempted from registration, namely:—St Ronan's Home, Dalkeith Road; Clement Park Nursing Home; St Mary's Home, King Street; and Dundee Women's Hospital and Nursing Home, Elliot Road.

Eleven visits were paid to the Nursing Homes during the year.

Nurses (Scotland) Act, 1943, and Nurses Agencies (Scotland) Regulations, 1945.

Dundee Private Nursing Home (Marrbank), Ltd., and Fernbrae Nursing Home, Ltd., are licensed under the above Act and Regulations to carry on agencies for the supply of nurses in terms of Section VIII. of the Act.

Foster Children, Adopted Children and Illegitimate Children.

During the year the health visitors paid special attention to 115 children who had been adopted, or were awaiting legal adoption, to 19 children who were under the care of foster parents, and to 77 illegitimate children. The special attention given by Health Visitors to illegitimate children is justified because of the higher death-rate amongst these children, and during 1947 the proportion of illegitimate children dying in the first year of life showed a significant fall.

Apart from the special care and attention given by health visitors to all illegitimate babies, 85 women who attended the " advice bureau " for expectant mothers were interviewed by the social worker attached to the Public Health and Social Welfare departments. Sixty-two were single, 2 were widows and 21 were married but separated from their husbands. These women were given help and guidance and were kept under special observation during pregnancy and after confinement. On following up these 85 women, the subsequent history shows that sixty-nine babies are being reared by their mothers and 49 of these are being looked after by relatives while the mothers are at work. Four of the mothers have since been married to the fathers of their infants and six are living with the respective fathers of their babies. Two babies have been legally adopted, one baby is in Duncarse Home because of maternal neglect and seven babies have died. Three mothers aborted, and in one case the pregnancy was not confirmed. Two women are still undelivered.

APPENDIX

TABLE I.

Still Births — Cause of Death.

1—Disease in or accident to mother—

(a) Diseases not specially associated with pregnancy or childbirth.

Diabetes mellitus of mother,	1
Syphilis,	1

(b) Diseases associated with pregnancy or childbirth.

Eclampsia and pre eclampsia,	16
Toxæmia,	3
Placenta prævia,	2
Accidental hæmorrhage,	7
Other A.P. hæmorrhages,	6

(c) Other causes in mother,

2—Anomalies of fœtus, placenta or cord—

Spina bifida,	1
Multiple malformations,	7
Anencephalus,	4
Hydrocephalus,	7
Erythroblastosis and hydrops fœtalis,	3
Post maturity,	1

3—Death of fœtus, by injury or other cause—

Abnormal presentation of fœtus,	5
Prolapse of cord,	11
Torsion of cord,	8
Prolonged labour,	3
Injury at birth, including cerebral hæmorrhage, ...	9
Disproportion,	1

4—Ill-defined or unknown cause—

Prematurity,	8
Asphyxia,	16
Macerated fœtus,	10
Cause unknown,	5

Neo-Natal Deaths— Cause of Death.

Cause of Death.	Males.										Females.										Total.	M.	F.	%
	Under 1 day.	1-2	2-3	3-7	1-2	2-3	3-4	Under 1 day.	1-2	2-3	3-7	1-2	2-3	3-4	1-2	2-3	3-4							
		dys.	dys.	dys.	wks.	wks.	wks.		dys.	dys.	dys.	wks.	wks.	wks.										
Prematurity,	23	2	2	5	3	2	0	3	4	3	7	4	0	0	37	21	42.6							
Atelectasis,	6	2	0	1	0	1	0	2	2	0	0	0	0	0	10	4	10.3							
Asphyxia,	3	0	1	0	0	0	0	2	0	0	0	0	0	0	4	2	4.4							
Congenital debility,	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1.5							
Injury at birth, incl. cereb. hæmorrhage,	2	1	1	0	2	0	0	4	0	0	0	0	0	0	6	4	7.3							
Con. malformations,	1	0	1	1	1	0	0	4	0	0	1	1	1	1	4	8	8.8							
Pneumonia (all forms),	1	1	1	2	2	2	0	0	0	0	0	2	2	2	9	5	10.3							
Gastro-enteritis, ...	0	0	0	1	0	3	1	0	0	0	0	3	1	0	5	4	6.6							
Other diseases of digestive system,	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.7							
Erythro-blastosis or Hydrops foetalis, ...	0	1	0	1	0	0	0	2	0	0	0	0	0	0	2	2	3.0							
Accidental mechanical suffocation,	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.5							
All other causes, ...	0	0	0	0	0	1	1	0	0	0	1	0	1	0	2	2	3.0							
36	7	7	11	10	8	2	17	7	3	10	10	6	2	80	56	100.0								
Premature,	Males.										Females.													
Full-time,	52										30													
	28										25													
	—80										—55													
Legitimate,	72 (25 F.T. 47 Prem.)										50 (26 F.T. 24 Prem.)													
Illegitimate,	8 (3 F.T. 5 Prem.)										5 (1 F.T. 4 Prem.)													
	—80										—55													
Prematurity associated with cause of death but not the primary cause of death,	1										3													
Gastro-enteritis associated with cause of death but not the primary cause of death,	2										6													
Pneumonia associated with cause of death but not the primary cause of death,	6										9													

TABLE III.

Deaths of Infants Over One Month and Under One Year.

Cause of Death.	Males.						Females.						Total.	Per centage.
	1-2 mths.	2-3 mths.	3-6 mths.	6-9 mths.	9-12 mths.	1-2 mths.	2-3 mths.	3-6 mths.	6-9 mths.	9-12 mths.	M.	F.		
Prematurity,	1	0	0	0	0	0	0	0	0	0	1	0	1	0.6
Pneumonia (all forms),	5	3	7	2	1	2	4	6	0	0	18	12	19	19.3
Other diseases of respiratory system,	0	1	3	0	0	0	2	0	1	1	4	4	5	5.2
Gastro-enteritis,	5	7	11	11	6	4	2	13	5	0	40	24	41	41.8
Other diseases of digestive system,	0	0	1	0	0	0	0	0	0	0	1	0	1	0.6
Congenital malformations, ...	4	1	1	1	0	1	0	0	0	2	7	3	10	6.3
Marasmus,	3	2	3	3	0	1	0	0	0	0	11	1	12	7.8
I.B. Meningitis,	0	0	0	0	1	0	0	0	1	0	1	1	2	1.3
Other forms of meningitis, ...	0	0	0	0	0	0	1	1	2	0	0	4	6	2.6
Measles,	0	0	1	0	0	0	0	0	0	0	1	0	1	0.6
Whooping cough,	0	0	0	0	1	0	0	0	0	0	1	0	1	0.6
Congenital syphilis,	0	1	0	0	0	1	0	0	0	0	1	1	2	1.3
Accidental suffocation,	3	1	1	0	0	1	0	2	0	0	5	3	8	5.2
All other causes,	1	3	2	2	1	0	0	0	2	0	9	2	11	7.0
	22	19	30	19	10	10	9	22	11	3	100	55	155	100.0
Premature,	Males.						Females.							
Full-time,	17						13							
	83						43							
Legitimate,	—100						—56							
Illegitimate,	92 (77 F.T. 15 Prem.)						51 (39 F.T. 12 Prem.)							
	8 (6 F.T. 2 Prem.)						5 (4 F.T. 1 Prem.)							
	—100						—56							
Gastro-enteritis associated with cause of death but not the primary cause of death,	4						2							
Pneumonia associated with cause of death but not the primary cause of death,	1						5							

TABLE IV.

Deaths of Children Over One Year.

Cause of Death.	Yrs.	Males.				Females.				Males & Females.			
		1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5
Whooping Cough,		0	0	0	0	1	0	0	1	1	0	0	1
Measles,		0	0	0	0	1	0	0	0	1	0	0	0
Pneumonia (all forms),		3	0	0	1	3	1	0	0	6	1	0	1
Tuberculosis (all forms),		2	2	1	0	1	0	3	1	3	2	4	1
Gastro-enteritis,		0	0	0	0	1	0	0	0	1	0	0	0
Encephalitis,		1	0	0	0	0	0	0	0	1	0	0	0
Hydrocephalus,		0	0	0	0	0	0	1	0	0	0	1	0
Pink Disease,		0	0	0	0	1	0	0	0	1	0	0	0
Accidents, burns, etc., ...		1	0	1	0	2	0	0	1	3	0	1	1
Meningitis,		1	0	0	1	0	0	0	0	1	0	0	1
Asphyxia following													
tonsillectomy,		0	1	0	0	0	0	0	0	0	1	0	0
Pyelitis, Broncho-pneu.,		0	1	0	0	0	0	0	0	0	1	0	0
Marasmus and Broncho-													
pneumonia,		1	0	0	0	0	0	0	0	1	0	0	0
Diphtheria,		1	0	1	0	0	0	0	0	1	0	1	0
Myocarditis,		0	0	0	0	1	0	0	0	1	0	0	0
		10	4	3	2	11	1	4	3	12	5	7	5

TABLE V.

MATERNAL DEATHS.

Classification of Certified Causes of Death of the 10 Dundee Deaths.

Directly Due to Child Bearing—	Yrs. 15-25	25-35	35+	Total.
Puerperal eclampsia,	0	0	1	1
Abortion complicated by phlebitis and cardiac				
failure,	0	0	1	1
Septic abortion,	0	0	1	1
Anæsthesia asphyxia during removal of re-				
tained placenta,	0	0	1	1
Death Due and Causes Aggravated by Child				
Bearing—				
Mitral Stenosis,	1	1	1	3
Pulmonary Tuberculosis,	1	0	0	1
Chronic pyelonephritis,	0	0	1	1

Deaths Unconnected with Pregnancy—

Ruptured aneurysm of gastro-epiploic artery, 0	0	1	1
			—
			10
			—

TABLE VI.

Analysis of Feeding in Infants Who Died Before Reaching the Age of One Year.

MALES.

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.
Breast,	9	2	0	0	0	0	0	0	0	0	0	11
Mixed,*	1	1	0	3	0	1	0	0	0	0	0	6
Partly Breast,† ...	3	9	8	8	7	5	6	6	6	4	6	62
Artificial,	17	10	11	2	0	4	0	1	2	2	4	52
Not Commenced, 46	0	0	0	0	0	0	0	0	0	0	0	46
Unknown,	4	0	0	0	0	0	0	0	0	0	0	4
	80	22	19	13	7	10	6	7	6	6	10	180

FEMALES.

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.
Breast,	7	2	0	0	0	0	0	0	1	0	0	10
Mixed,*	3	0	0	0	0	0	0	0	0	0	0	3
Partly Breast,† ...	2	4	7	8	6	5	2	2	2	3	1	40
Artificial,	17	5	2	0	1	2	2	0	1	1	2	31
Not Commenced, 25	0	0	0	0	0	0	0	0	0	0	0	25
Unknown,	1	0	0	0	0	0	0	0	0	0	0	1
	55	11	9	8	7	7	4	3	3	4	3	111

MALES AND FEMALES.

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.	%
Breast,	16	4	0	0	0	0	0	0	1	0	0	21	7.2
Mixed,*	4	1	0	3	0	1	0	0	0	0	0	9	3.1
Partly Breast,†	5	13	15	16	13	10	8	8	7	7	102	35.1	
Artificial,	34	15	13	2	1	6	2	1	3	6	83	28.5	
Not Commenced, ...	71	0	0	0	0	0	0	0	0	0	0	71	24.4
Unknown,	5	0	0	0	0	0	0	0	0	0	0	5	1.7
	135	33	28	21	14	17	10	10	10	13	291	100.0	

*Mixed feeding means breast feeding complemented or supplemented by artificial feeds, i.e., combination of breast and artificial feeding.

†Partly breast fed means that breast feeding had been carried out for part of the time, but that artificial feeding had been substituted before death occurred.

TABLE VII.

Analysis of Feeding in Infants Who Died Before Reaching the Age of One Year (Gastro-Enteritis Cases).

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.
Breast,	1	0	0	0	0	0	0	0	0	0	0	1
Mixed,*	1	0	1	1	0	1	0	0	0	0	0	4
Partly Breast,† ...	0	5	5	5	1	1	2	4	5	4	32	
Artificial,	1	0	1	0	0	2	0	0	0	2	6	
Not Commenced, ..	0	0	0	0	0	0	0	0	0	0	0	
Unknown,	2	0	0	0	0	0	0	0	0	0	2	
	5	5	7	6	1	4	2	4	5	6	45	

FEMALES.

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.
Breast,	1	1	0	0	0	0	0	0	0	0	0	2
Mixed,*	1	0	0	0	0	0	0	0	0	0	0	1
Partly Breast,†...	0	2	2	3	5	4	2	1	1	0	20	
Artificial,	2	1	0	0	0	1	1	0	0	0	5	
Not Commenced, ..	0	0	0	0	0	0	0	0	0	0	0	
Unknown,	0	0	0	0	0	0	0	0	0	0	0	
	4	4	2	3	5	5	3	1	1	0	28	

MALES AND FEMALES.

	Months	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9+	Tl.	%
Breast,	2	1	0	0	0	0	0	0	0	0	3	4.1	
Mixed,*	2	0	1	1	0	1	0	0	0	0	5	6.9	
Partly Breast,†	0	7	7	8	6	5	4	5	6	4	52	71.2	
Artificial,	3	1	1	0	0	3	1	0	0	2	11	15.1	
Not Commenced, ...	0	0	0	0	0	0	0	0	0	0	0	0.0	
Unknown,	2	0	0	0	0	0	0	0	0	0	2	2.7	
	9	9	9	9	6	9	5	5	6	6	73	100.0	

*Mixed feeding means breast feeding complemented or supplemented by artificial feeds, i.e., combination of breast and artificial feeding.

†Partly breast fed means that breast feeding had been carried out for part of the time, but that artificial feeding had been substituted before death occurred.

Analysis of Feeding of Gastro-Enteritis Cases.
Breast Feeding Stopped

	Never Breast Fed.	Within 2 wks.	Between 2 wks. and 1 mth.	Between 1 mth. and 3 mths.	Between 3 mths. and 6 mths.	Breast fed at 6 mths.	Un- known.	Tl.
Males,	7	11	9	11	1	5	1	45
Females,	5	6	7	5	2	2	1	28
	12	17	16	16	3	7	2	73
	(16.4)	(23.3)	(21.9)	(21.9)	(4.1)	(9.6)	(2.7)	

No. of babies not breast fed within the first six weeks, 32 males (71.1%)
22 females (78.6%)
—
Total, 54 (74%)

TABLE VIII.

**Analysis of Feeding in Infants Who Died Before Reaching the
Age of One Year (Pneumonia and Marasmus Cases).**

PNEUMONIA.

	Breast.	Mixed	Partly Breast.	Arti- ficial.	Not Com- menced.	Un- known.	Total.
0-1 month—							
Females, ...	2	0	0	3	0	0	5
Males,	2	0	1	3	3	0	9
1-12 months—							
Females, ...	1	2	7	2	0	0	12
Males,	1	0	12	5	0	0	18

MARASMUS.

	Breast.	Mixed	Partly Breast.	Arti- ficial.	Not Com- menced.	Un- known.	Total.
0-1 month—							
Females, ...	0	0	0	0	0	0	0
Males,	0	0	0	1	0	0	1
1-12 months—							
Females, ...	0	0	0	1	0	0	1
Males,	0	0	7	4	0	0	11

PRE-SCHOOL AND SCHOOL HEALTH SERVICES

Report by Dr. JAMES A. CUTHBERT

1.—LIST OF STAFF.

(a) Whole-time.

School Medical Officers.

James A. Cuthbert, M.B., Ch.B., D.P.H., Chief Executive School Medical Officer.

Dora W. Gerrard, M.B., Ch.B., D.P.H., Assistant Medical Officer of Health (Schools).

Nona S. Lesslie, M.B., Ch.B., D.P.H., Assistant Medical Officer of Health (Schools).

Kathleen A. Allison, M.B., Ch.B., Assistant Medical Officer of Health (Schools).

James D. Ramsay, M.B., Ch. B., Assistant Medical Officer of Health (Schools).

School Dental Officers.

David A. Finlayson, L.D.S., Senior Dental Officer.

Douglas Anderson, L.D.S., Assistant Dental Officer.

Rachael Mears, L.D.S., Assistant Dental Officer.

Mary Millar, L.D.S., Assistant Dental Officer.

Mary McArthur, L.D.S., Assistant Dental Officer.

School Nurses.—The services of a Combined Staff of Superintendent and 41 Health Visitors.

Clerkesses, 4.

Dental Attendants, 5.

Nurses 2 and Clinic Attendants 3, for Scabies Treatment.

Medical Room Attendant at the Special School for Physically and Mentally Handicapped Children.

Clinic Porters, 2.

Changes in Whole-time Staff—

Dr Kathleen Allison was appointed to the permanent staff in December, 1946.

Dr Claude Imrie was appointed Assistant Medical Officer of Health, Suffolk County, and left on 30-8-46. His place was filled temporarily by Dr Flora Perry until Dr James D. Ramsay commenced duty on 20-1-47.

Mr Douglas Anderson, L.D.S., resumed after war service on 1-8-46, and the temporary appointments of Miss Rachael Mears, L.D.S., and Miss Mary Millar, L.D.S., were made permanent on 3-10-46, when it was also agreed to retain Miss Mary McArthur, L.D.S., as an additional Assistant Dental Officer. Authority to increase the establishment of Health Visitors as an interim measure to 42, including the Superintendent, was given by the Corporation in December, 1946. There have been numbers of changes in the Health Visitor staff, but by the employment of temporary uncertificated health visitors and part-time nurses it has been possible to keep the working strength up to 38 or 39 most of the session.

(b) Part-time Staff.

Mr M. J. Gibson, F.R.C.S., Aurist.

Dr John Kinnear, M.R.C.P.Ed., Dermatologist.

Dr Allister M. MacGillivray, D.O.M.S., F.R.S.E., Oculist.

Dr Robin M. Mathers, D.O.M.S., Oculist.

Mr I. S. Smillie, F.R.C.S., Orthopædic Specialist.

Dr Mary Proudfoot, Assistant Medical Officer of Health (General)

Changes in Part-time Staff—

Dr Robin M. Mathers, D.O.M.S., was appointed additional oculist in September, 1946.

With the development of the Regional Orthopædic Scheme, Mr I. S. Smillie succeeded Mr W. V. Anderson, F.R.C.S., as Orthopædic Specialist from October, 1946.

2.—GENERAL STATISTICS.

Population of the area,	176,400
Number of Schools—	
(a) Primary }	10
} Under Education Authority	
(b) Secondary }	38
(c) 1. Special Schools	4
2. Nursery Schools	4
3. Special Classes (Nursery) in ordinary schools	3
(d) In receipt of grant from Education Authority and under medical inspection—	
1. Primary and Secondary	1
2. Nursery Schools	2
(e) Under Provincial Training College for Teachers and by arrangement under medical inspection—	
1. Primary School	1
2. Special Class Nursery	1
Number of Children on Registers	25,922
Number of Children in Average Attendance,	23,046

3.—SANITARY CONDITION OF SCHOOLS.

Slow but satisfactory progress has been made with the removal of the obstructions to light, ventilation, and playground shelter and space referred to in the last report as a legacy from the war years. Much remained to be done at the end of the session, but the work is proceeding. No systematic survey of the schools has been attempted.

4.—ORGANISATION AND ADMINISTRATION.

A — System and Extent of Medical Inspection and Treatment.

The groups of children presented for Systematic Medical Inspection were:—(1) Entrants and children born in (2) 1937, (3) 1933, and (4) 1930. In addition, wherever possible the pupils in first Primary classes were examined for vision and hearing defects, but it was not possible to cover all such classes.

Summary of the Work of the Medical Officers.

Child Welfare Clinic Sessions,	44
Consultation Clinic Sessions,	500
Systematic Inspection Sessions,	314
Special Visits to Ordinary Schools,	73
Visits to Special Schools,	48
Day Nurseries,	242
Nursery Schools,	125

Dundee Trades School.

All the pupils enrolled at this school for pre-apprenticeship courses for the building or engineering industries have been examined on our behalf by an Assistant Medical Officer of Health (General).

Number examined — 152.

Classification of fitness according to Table III.:—

	Number.	Percentage.
Grade I.,	88	57.89
Grade II.a,	7	4.605
Grade II.b,	29	19.079
Grade II.c,	2	1.316
Grade III.,	20	13.157
Grade IV.a,	6	3.947
Grade IV.b,	—	—

Seymour Lodge Pre-nursing School.

23 Dundee students enrolled were examined and their classification according to Table III. is as follows:—

	Number.	Percentage.
Grade I.,	15	65.22
Grade II.a,	1	4.35
Grade II.b,	2	8.70
Grade II.c,	—	—
Grade III.,	2	8.70
Grade IV.a,	3	13.04
Grade IV.b,	—	—

Fifteen students from the county areas were examined as to their fitness for the course by their own medical officers.

Following the resignation of Dr Imrie, the appointment of Dr Robin Mathers, D.O.M.S., as additional oculist has enabled us to have refraction clinics at the rate of six per week in an effort to keep abreast of the large volume of work.

The X-ray treatment of cases of tinea capitis has been given by the Dermatologist at his private consulting room.

The Orthopædic Specialist has given a regular whole day per fortnight to orthopædic out-patients children of all ages. Half of alternate days is spent in supervision of the pupils of Fairmuir Special School. The number of orthopædic cases grows steadily, and it is not possible under present conditions to keep pace with the demand for a service of this kind.

There is no change to report in the consultation or treatment clinic premises.

B — System and Extent of Dental Inspection and Treatment.

The details of the work of the Dental Service will be found in the report by the Senior Dental Officer. The rising consent rate is so adding to the work that the present staff is strained to the limit and a small part of the field of inspection work has not been covered during the session.

C — School Nursing and Arrangements for Following Up.

These arrangements have continued unchanged. The Combined Health Visitor Staff has much to commend it, but there is

little doubt that having a Health Visitor off her district duties for 5 to 10 or 12 successive school day forenoons is an unfortunate necessity with the present Health Visitor and Medical Officer strength.

The Health Visitors spent 402 sessions on medical inspection in schools and paid 1,380 additional visits to schools.

1,667 follow-up visits were paid to 1,419 school children.

462 follow-up visits were paid to 408 day nursery and nursery school children.

2,194 Health Visitor sessions were devoted to consultation and treatment clinics in addition to two Health Visitors employed full time on indoor duties, one in the Special School for Physically and Mentally Handicapped Children and the other at the Specialists' Clinics and treatment of Eye and E.N.T. cases.

D — Co-operation with the Public Health Service, etc.

Full co-operation with the Maternity and Infant Welfare Service continued as before, and there is satisfactory liaison with the Tuberculosis Department and the Infectious Diseases and General Hospitals.

The Tuberculosis Officer sets a particular session apart for children and full advantage is taken to refer any known or suspect cases of chest or gland infection.

Diphtheria immunisation has been carried on in the same way, and the figures for this session are very satisfactory thanks in large measure to the fine propaganda work of the Health Visitors.

2,025 children (84.27%) of the 2,403 School Entrants submitted for Systematic Medical Inspection had already received a course of injections.

226 (9.2% of the total examined) of the remaining 348 agreed to have the course.

1,704 (84.13% of those previously "immunised") agreed to have a further "maintenance dose," had already received such a dose, or did not require it, having completed the course within the previous year.

We feel that these figures are significant in relation to the fact that no Dundee case has died of diphtheria since March, 1944.

The figures for the past three sessions are as follows:—

	Not Yet Immunised.		Previously Immunised.	Consents for	Number Examined.
	Course.	Refusals.		Maintenance Dose.	
1944-45,	233	125	1,967	1,249	
	9.87%	5.3%	83.4%	63.5% (of P.I.)	2,359
1945-46,	202	143	2,085	1,563	
	8.3%	5.9%	85.8%	75.0% (of P.I.)	2,430
1946-47,	226	152	2,025	1,704	
	9.2%	6.53%	84.27%	84.13% (of P.I.)	2,403

E — Co-operation with Voluntary Organisations and Other Outside Bodies.

During the closing months of this session the Newport Children's Home, Comerton, re-opened as a holiday home for the benefit of Dundee school children.

Increasing numbers of children have been referred by private practitioners for advice or special treatment. Many of them are orthopaedic cases which come direct or by way of the Dundee Orthopaedic and Rheumatic Clinic.

Liaison with the Children's Wards of the Royal Infirmary and indeed all the departments of that institution is very satisfactory and greatly appreciated.

F — Co-operation with Teachers and Parents with Special Reference to the Attendance of Parents at Inspections.

The attendance of parents at routine medical inspections in school is still disappointing by reason mainly of the large numbers of married women employed.

Boys' and girls' parents present:—

Entrants Group,	1,710	71.16%
2nd Group,	719	29.004%
3rd Group,	54	2.56%
Secondary Group,	—	—

The attendance of parents at systematic and at special examinations in clinics is not by any means as full as we should like, and this has been commented on in previous reports. These are abnormal times with so many women encouraged to remain in employment, and the proper follow-up of children suffering from defects or uncleanness is extremely difficult. It is more time-consuming and often less effective than it should be because of the difficulty of making satisfactory contact with the responsible parent.

The teachers continue to co-operate willingly in any project relating to the health and well-being of their pupils, and we take this opportunity of acknowledging our indebtedness to them and recording our cordial appreciation. The striking results of the efforts to obtain the highest possible proportion of the children protected against diphtheria on entering school justify the hope that the teachers will continue their valuable assistance along the present lines.

5. — THE FINDINGS OF MEDICAL INSPECTIONS.

The number of children examined systematically in the prescribed age groups was 7,302 at 314 sessions, an average of 23-24 per session.

In the previous session the number was 7,401 at 345 sessions, average 21-22.

“ Other Examinations ” include, in the total of 8,459, the entrants to the Trades School and the Pre-Nursing School already mentioned. 386 children were brought forward specially for examination in schools compared with 459 in the previous session.

Special examinations in clinics include the following:—

Applicants for licences for employment, ...	314
Applicants for exemption,	10
Children as to fitness for Camp School, ...	620
Children as to fitness for Holiday Camp, Convalescent Homes, etc.,	950
Juvenile Court Cases,	61

Special Examinations in Schools.

	386 Children Examined 208 Defective.	1,608 Children re-examined 759 still Defective.
Head—Vermin,	3	4
Nits,	7	50
Other Conditions,	10	17
Body—Vermin,	3	1
Other Conditions,	28	52
Diseases of Tonsils,	11	100
Defective Vision,	45	227
Diseases of the Eye,	13	71
Defective Hearing,	2	55
Diseases of the Ear,	4	17
Speech Defect,	1	7
Mental or Nervous Condition, ...	10	31
Infectious Disease,	1	21
Other Conditions,	75	214

83 Children were reported to the Direction of Education to be requiring special educational treatment in special schools. The following tables shows the nature of the handicap:—

General Debility,	8
Pre-tuberculous,	4
Ante-rheumatism,	1
Chorea,	4
Cardiac Condition—Acquired,	3
Congenital,	2
Cerebral Palsy,	4
Congenital Deformities,	5
Acquired Deformities—(Disease),	2
Trauma,	2
T.B., Bone and Joint,	4
T.B., Abdomen,	2
Phlyctenular Conjunctivitis,	1
Bronchitis,	3
Asthma,	2
Epilepsy,	3
Post-cerebral tumour,	1
Post encephalitis,	1
Mentally Handicapped,	19
Difficult Children,	3
Blind,	1
Partially Sighted,	4
Deafness—Grade 2b,	2
Grade 3,	2

The incidence of particular defects noted at systematic examinations is shown in Table II. in the Statistical Section.

It is informative to summarise those figures and compare them with the corresponding results shown in the previous report.

Clothing and Footwear Unsatisfactory.

Of the total number of children examined, 7,302, 11 (0.15%) and 7 (.09%) respectively were classified as unsatisfactory. This shows a definite improvement in the condition of clothing, but none in the state of footwear, attributable no doubt to the quality and to the delay in having repairs carried out.

During the year, 819 children were supplied with 1,388 pairs of boots or shoes.

Cleanliness.

Of the total number of children examined, 7,302, 483 (6.61%) showed evidence of dirt, nits or verminous conditions of the head, and 32 (0.44%) dirty or verminous body conditions. In the case of girls (total 3,624), 401 (11.06%) showed head infestation—a considerable improvement over the previous year (14.06%). This is probably due to the diligent supervision and re-examination by the Health Visitors at their weekly visits to the schools followed up by visits to the homes and, on extreme occasions, exclusion of the pupils from school and referral to the clinics. This procedure has shown good results. The percentage of boys and girls found to have dirty or verminous bodies was roughly equal — 15 boys (0.41%) and 17 girls (0.47%). The total is considerably improved from last year (0.7%).

Skin: Head and Body.

The incidence of ringworm of the scalp showed a very spectacular drop following on the resumption of radical treatment by X-rays by the Consultant Dermatologist at the beginning of this session and is detailed in his report. The majority of cases were discovered at special examinations of groups of children—in some schools all the boys were examined by Wood's glass— were brought to the clinics by parents referred by general practitioners or from the out-patient department of the Royal Infirmary and by examination of all known contacts. Only 2 were present at systematic medical inspection, which is 0.03% of the total number of children examined.

The incidence of scabies also shows progressive improvement —38 cases (0.52%), compared with 72 (0.97%) last year.

Nutritional State.

A very definite improvement in the nutrition of the children—slightly defective, 44 (0.6%) as against 172 (2.32%) last year; and bad 1 (0.01%), as compared with 3 (0.04%), is probably further evidence of the value of school meals and the increased participation by pupils. 1,919,499 school meals were taken by the pupils, and of these 383,900 were supplied free of charge. 4,252,000 bottles of milk were supplied, compared with 3,194,279 last year.

Mouth and Teeth Unhealthy.

The figures recorded indicate a condition of the mouth or teeth having a detrimental effect on the health of the child, gingivitis, abscess formation, neglected oral hygiene, etc., and not a dental picture. The marked improvement, 76 (1.04%), against 172 (2.32%) last year, must suggest that teaching of hygiene is being effective and that the work of the dental service on conservative measures is showing good results.

Naso-Pharynx.

There is an over-all improvement in the number of children suffering from naso-pharyngeal defects from last year.

Obstruction of the nasal passages requiring observation 100 (1.37%), as against 183 (2.47%).

Recommended for operation 42 (0.57%), compared with 64 (0.86%).

Tonsils requiring observation 439 (6.01%), as against 545 (7.36%), and requiring operation 134 (1.83%), as against 161 (2.18%).

The number of children suffering from enlarged cervical glands requiring operation has increased to 5 (0.07%) from 1 (0.01%). In this connection very close co-operation is maintained between this department and the Tuberculosis Department, and many more cases are referred for general examination, X-rays, etc., when adenitis is present without an obvious local focus. The incidence of enlarged glands is again highest in the entrant age group.

Eye — External Diseases.

The percentages of the different conditions in this group all show some improvement with the exception of Strabismus, which has increased from 302 (4.08%) to 319 (4.37%). The highest number of cases (128) occurs in the entrants group. After consultation by the Oculist many of those cases undergo orthoptic treatment.

Visual Acuity.

1,070 children of the age groups who have the Snellen test showed fair vision (14.65%) as compared with 989 (13.36%) last year and 125 (1.71%) had bad vision as compared with 110 (1.49%), which is an increase in both grades of defect. 306 (4.19%) children were referred for refraction as against 420 (5.67%).

As the standard of grading remains the same, this suggests some deterioration; but for several months of the very severe winter, lighting was bad and snow glare may have had some effect.

Ears — Otorrhœa.

The number of cases of otorrhœa 70 (0.96%) is greater than the previous year, 51 (0.69%) perhaps again due to the severe weather.

Defective Hearing.

Individual assessment possibly accounts for the increased number of children found to have Grade I. hearing loss, which is 12 (0.16%); Grade II.a is 2 (0.03%); and 3 (0.04%) of Grade II.b is practically the same. In 1945-46, 6 cases of Grade I. hearing loss (0.08%) were recorded.

Speech.

The number of children affected by speech defect again shows no change from previous years.

Mental and Nervous Conditions.

(a) Backwardness due to irregular attendance has improved from 18 cases (0.24%) in 1945-46 to 5 (0.07%) in the present session.

(b) 10 cases (0.14%) assessed as intrinsically dull are reported.

(c) 1 case mentally defective (educable) 0.01%.

(d) 1 case mentally defective (ineducable) 0.01%.

(e) 13 cases (0.18%) highly nervous and excitable is an increase over last year and bringing the figure again back to that of the previous year.

(f) 2 cases (0.03%) difficult in behaviour shows a marked improvement on last year's figure 7 (0.09%) perhaps indicating more stable home life and parental supervision.

Circulatory System — Organic Heart Disease.

Congenital defects occur in 10 children (0.14%) as against 12 (0.16%) and acquired lesions in 12 (0.16%) as compared with 13 (0.17%). The incidence of functional disorders is considerably reduced to 38 (0.52%) from 61 (0.82%). Detailed investigations of the congenital lesions have been more thoroughly carried out by the Consultant Pædiatrician, to whom the cases were referred in view of the modern surgical treatments now undertaken for certain of these defects.

Lungs.

Chronic Bronchitis was present in 64 (0.88%) of the total number examined, and in 56 (0.76%) last year. Suspected Tuberculosis was 10 (0.14%) as compared with 13 (0.17%) and other chest conditions remained unchanged.

Deformities.

132 (1.18%) cases of physical deformity were recorded as compared with 216 (2.91%) in the previous session, but there is definitely a more thorough investigation of orthopædic conditions carried out at the systematic inspection than occurred a few years ago.

Infectious Diseases.

10 children (0.14%) were actively suffering from infectious disease.

Other Diseases or Defects.

This last comprehensive category shows a very marked drop in the number of children affected, giving 280 (3.83%) as compared with the 1945-46 figure of 530 (7.16%).

In short there appears to be no evidence in the recorded results of systematic medical inspection of the prescribed age groups to suggest any deterioration in the health or physical condition of the school population, but rather a tendency toward improvement all round. There is still ample evidence of lack of adequate attention to personal hygiene especially of the girls. The improvement recorded is encouraging, but still far from satisfactory, and greater effort is required on the part of many parents.

6. — MEDICAL TREATMENT.

A — Minor Ailments.

There was no change in the arrangements for consultation and treatment clinics during the session.

Consultation Clinic Attendances.

Clinic.	Children 2-5 Years.		Children 5-15 Years.	
	Cases.	Consultations.	Cases.	Consultations.
Central,	326	604	3,348	8,528
West,	143	332	735	4,157
Lochee,	96	254	611	3,532
Ferry Road, ..	58	118	424	1,592
Bro. Ferry, ..	23	48	127	944
Maryfield,	67	170	615	3,480
	<hr/> 713	<hr/> 1,526	<hr/> 5,860	<hr/> 22,233

The total attendances of children of both age groups shows a slight reduction this session. For last year they were 2-5 years, 1,595; and 5-15, years, 25,335.

2,110 intimations to Headmasters regarding the occurrence and school attendance of cases and contacts of infectious diseases were sent during the year.

4,308 certificates exempting children from school attendance for periods varying from one to six weeks were issued to the schools and Attendance Department.

Treatment Clinic Attendances.

(6 Clinics and 2 Scabies Treatment Centres)

	Children 2-5 Years.			Children 5-15 Years.		
			Av. per			Av. per
	Cases.	Attend.	Case.	Cases.	Attend.	Case.
Cuts, bruises, sprains,						
Minor injuries, etc., ...	115	665	5.17	4,143	25,017	6.04
Diseases of the ear,	34	284	8.56	573	5,676	9.91
Diseases of the eye						
(ex. def. vision),	60	556	9.26	974	9,448	9.70
Diseases of the skin—						
Ringworm (Scalp):						
X-ray treatment, ...			See below.			
Other treatment, ...	39	145	3.72	175	685	3.91
Ringworm (Body), ...	9	32	3.5	102	879	8.62
Scabies—						
Clinic treatment, ...	8	17	2.13	72	279	3.875
Baths treatment, ...	72	622	8.64	739	8,818	11.93
Impetigo,	54	325	6.02	728	5,684	7.81
Other Diseases,	18	86	4.7	426	2,183	5.10

105 cases of ringworm of the scalp had treatment by epilation under the direction of the Dermatologist, and the following details are of interest:—

Cases.

22 were treated by administration of Thallium Acetate.

1 by Thallium followed by local X-ray.

1 by Thallium followed by total X-ray.

39 by local X-ray to one or more areas.

2 by local X-ray repeated once.

1 by local X-ray repeated twice.

3 by local X-ray followed by total X-rays.

35 by total X-ray.

1 by total X-ray repeated once.

105

Further details with regard to the prevalence and treatment of ringworm of the scalp will be found in the report by the Dermatologist appended. There has been a further increase during this session, but it appears that the peak is past and we look for a steady and rapid decline with early and vigorous treatment.

The incidence of Scabies in children of school age has shown a marked fall in this session to the lowest figure for 7 years.

B — Defective Vision and Squint.

From September, 1946, fairly steadily there have been six Specialist Clinics per week, three from each of the Oculists. In spite of these generous arrangements the waiting list of cases for refraction assumes formidable proportions, and there may be a delay up to as long as eight weeks before a child is seen by the specialist. The reason is that a real effort is made to have cases reviewed at the interval, three, six or twelve months later, prescribed by the specialist, and with a limited number of refractions per consulting session it may be possible to deal with, say, five or six "return" cases and only three or four new cases.

This service is working very smoothly and more efficiently than in previous years. The free supply and repair of spectacles undoubtedly makes for fewer defaulters, although a small number of parents still arrange privately with the optician for the supply of more expensive frames and default on uplifting the spectacles when the time comes to pay up the difference. The remedy for this appears to be payment of the difference as a deposit at the time of ordering.

1,142 pairs of spectacles were provided; 48 pairs of spectacles were repaired.

There has been no change in the Orthoptic Clinic arrangements and the figures for the session are as follows:—

Cases brought forward from previous year:—

Waiting list,	377
Under treatment,	192
Postponed (partly treated),	99

668

New cases,	173
-------------------	-----

841

Number of new cases not requiring or unsuitable for treatment,	13
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Discharged during year,	113
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126

Carried forward to next session:—

Waiting List	379
---------------------	-----

Under Treatment	228
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Postponed (partly treated)	108
-----------------------------------	-----

841

Attendances made by children under 5 years—

Children	60
-----------------	----

Attendances	188
--------------------	-----

Attendances made by children 5 years and over—

Children	113
-----------------	-----

Attendances	5,177
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The report of the Senior Ophthalmic Specialist is appended.

C — Nose and Throat (Operative Treatment).

No figures are available for the cases treated through private practitioners or the voluntary hospital under arrangements made by the parents.

Under our arrangements the particulars are given in the report appended on the work of the Ear, Nose and Throat Specialist. Children seen as Out-patients at our weekly Specialist Clinic received surgical treatment in Maryfield General Hospital or the Dundee Royal Infirmary in the proportion roughly 1 to 15. No specific contribution is made to the voluntary hospital in respect of this service.

D — Orthopaedic and Postural Defects (Specialist Treatment).

From January, 1947, the Orthopaedic Specialist has given a whole day regularly every fortnight to out-patient cases. On alternate visits he spends the forenoon session in the Special School supervising the cases there and directing their treatment. The Staff of the whole Department and also, it would appear, many of the private practitioners have become more orthopaedic conscious with the result that a considerable list of cases await a first consultation.

Physiotherapy has been provided in the Special School by a member of the Physical Training Staff, but most of this work including plasters has been arranged at the Dundee Orthopaedic and Rheumatic Clinic on a customer basis.

Some cases requiring operative treatment have continued in Stracathro Hospital. Most of this work, however, is now done in Bridge of Earn Hospital.

The figures for this session are as follows:—

Consultations:—

Babies

(Under 1 year).		1-5 years.		5-15 years		Over 15 years.	
Cases.	Consult.	Cases.	Consult.	Cases.	Consult.	Cases.	Consult.
26	82	95	319	151	909	10	39
Number of Days.		Total Consultations.		Average per Day.			
25		1,349		53.96			

Recommended for Hospital—

0-1	1-5	5-15	15 +
6	9	34	12

Admissions to Hospital—

0-1	1-5	5-15	15 +
6	9	26	12

Recommended for treatment at Dundee Orthopaedic and Rheumatic Clinic—

0-1	1-5	5-15	15 +
7	73	108	8

Number of Treatments given—

0-1	1-5	5-15	15 +
177	2,471	5,680	679

Artificial Sunlight Treatment (3 Clinics).

The Health Visitor Staff was so depleted that these centres were closed in April, 1947, when it was considered that little hardship would be caused during the summer months.

	Cases.	Attend.	Av. per Case.
Boys 2-5 years	40	728	18.20
Boys over 5 years	131	2,437	18.60
Girls 2-5 years	32	614	19.19
Girls over 5 years	131	2,521	19.24

E — Speech Defects.

Miss W. Laidlaw, L.C.S.T. has continued her work throughout the session with considerable success, dealing as before with the most urgent and disabling defects. There is little prospect of developing this service so long as qualified therapists are in such short supply.

Miss Laidlaw reports that, while stammering is still the chief defect, the number of other defects is so great that since January, 1947, she has endeavoured to fit into her scheme of treatment as many different types of cases as possible. Classes have been formed of the most severe cases of dyslalia, lisps and lateral sigmatism and all the known cases of cleft palate are under treatment.

	Boys.	Girls.	Total.
Number of children examined	303	40	343
Waiting and requiring treatment ...			206
Carried forward for treatment from previous year			37
Total cases treated			137

Defects treated—

Stammers	58	13	71
Dyslalia	16	9	25
Lateral sigmatism	13	3	16
Lisps	13	3	16
Cleft Palate	4	2	6
Aphonia	1	—	1
Deaf Speech	1	1	2

Total Cases Discharged—

After treatment for stammers	22	6	28
“ “ “ dyslalia	20	3	23
“ “ “ lateral sigmatism	7	—	7
“ “ “ lisps	8	2	10
“ “ “ cleft palate	—	1	1
“ “ “ aphonia	—	1	1
“ “ “ deaf speech	—	—	—
Referred to Child Guidance Clinic ...	1	1	2
Referred to Educational Psychologist	2	—	2
Parents Interviewed	—	—	30

7. Dental Inspection and Treatment.

The report by the Senior Dental Officer is appended.

8. Special Schools and Classes.

The only change to record in the arrangements for the education of handicapped children concerns those who were in Sidlaw Sanatorium, Auchterhouse. The Sanatorium was closed in September, 1946, but all the children requiring further in-patient treatment were transferred to two wards in King's Cross Hospital. The Education Committee appointed a full time teacher to be in charge of bedside instruction and this has proved very valuable occupational therapy for the child patients.

One full time teacher employed by the Education Committee visits severely handicapped children in their homes for bedside instruction. The names of suitable cases are submitted by this department to the Director of Education.

Fairmuir Special School (P.D. Side)

	Boys.	Girls.
On the roll at 31.7.46	106	97
Admitted	25	21
Transferred to Ordinary Schools	10	5
Left—Over age or exempted	9	17
Died	—	1
On the roll at 31.7.47	112	95

Sidlaw Sanatorium Special School

On the roll at 31.7.46	49
„ „ 30.8.46	38
„ „ 19.9.46 (school closing date)	37

Blind and Partially Sighted Children

On the roll at 31.7.46	34
Admitted	8
Discharged	1
On the roll at 31.7.47	41

Two blind children have been boarded and educated in the Royal Blind School, Craigmillar, Edinburgh, and 5 children have been boarded in the Dalglish Hostel attached to the Dundee Institution for the Blind because of special domestic circumstances.

Deaf, Partially Deaf and Deaf Mute Children.

On the roll at 31-7-46,	32
Admitted,	27
Discharged,	5
Transferred to other Special School,	2
On the roll at 31-7-47,	52

Two children from this city, one severely deaf, the other slightly deaf and suffering from cleft palate have been boarded and educated in St Vincent's School, Tollcross, Glasgow.

The Dundee Institution for the Deaf reopened their hostel premises in Rankine Street in April, 1947, when they were derequisitioned after being in use as a wartime nursery for some years. The Education Committee agreed to admit the Institution Children as day pupils to the Special School for the Deaf. The resources of the school are now fully taxed.

Early in this session the Multitone hearing aid equipment was duly installed in one of the rooms.

Mentally Handicapped Children.

Fairmuir Special School (R. Side)—

	Boys.	Girls.
On the roll at 31-7-46,	75	45
Admitted,	24	6
Left—over-age or unable to benefit,	13	5
Left town,	3	1
On the roll at 31-7-47,	83	45

The new arrangements referred to in the last report and intended to provide increased accommodation with improved facilities have, unfortunately been held up for at least a session by an acute shortage of premises for other purposes. Meantime the Educational Psychologist is ascertaining considerable numbers of children in ordinary schools so mentally handicapped as to require special educational treatment.

Suitable premises have been sought for the opening of an Occupational Centre, and this is regarded as a matter of some urgency. Unfortunately there is no prospect meantime of getting such a centre started.

The Child Guidance Clinic established in the premises of the Provincial Training College for Teachers, Park Place, and managed for some years by an ad hoc committee on which the Education Authority were represented was taken over by the Education Authority in May, 1945.

A new clinic psychologist, Miss Mary D. Carrigan, M.A., was appointed in August, 1946, to succeed Miss Agnes McClure.

Dr John D. Uytman, Medical Psychologist on the University College Staff, was appointed by the Education Committee in April, 1947, Medical Psychologist to the Clinic for two sessions weekly.

Full use is made of the facilities for all cases of behaviour difficulty. A full report on the work of the Clinic will appear in the Annual Report of the Director of Education, but the following figures for the session from the beginning of October, 1946, when she commenced duty have been kindly supplied by Miss Carrigan:—

Cases carried forward from previous session,	31
New cases referred,	48
Old cases referred for re-opening,	16
	—
Total,	95

Cases for advice or diagnosis,	33
Cases accepted for treatment,	43
Carried forward on waiting list,	19

Five of the cases were under 5 years of age, and five children of school age were referred by neighbouring County Authorities.

Intellectual Difficulties,	4
Behaviour Difficulties,	33
Temperamental Difficulties,	7
Habit Disorders,	13
Organic Disorders,	2
Psychoneurosis,	1
Psychological Examination Only,	4
	—
	54

Nursery Schools.

It is gratifying to be able to report some development of nursery schools although lack of premises and of trained staff keep the provision far short of the demand.

Bellfield Nursery School continued under the Education Authority with an average roll of 41 and average attendance of 36.

Three others opened during this session under the Authority, viz.:—

	Average Roll.	Average Attendance.
Ellengowan on 26-8-46,	40	32
Polepark on 25-11-46,	38.7	30
Cotton Road on 25-11-46,	53.7	45.3

The two private Nursery Schools for which the Authority provides teaching staff and grant, viz., Grey Lodge and Wesley House, continued their good work throughout the session. Each had an average roll of 24 and an attendance 19.5.

Four nursery classes in ordinary schools continued throughout this session as previously. Lack of suitable accommodation has been mainly responsible for postponed development of further classes.

Holiday and Convalescent Homes.

The arrangements for admission of groups of 20 children fortnightly to Auchterhouse Holiday Home were continued as described in the last report, and the four places allocated to us in St Leonard's Convalescent Home, St Andrews, were filled most of the year, the children enjoying a month's stay.

The Newport Children's Home, Comerton, Fife, was reopened in April, 1947, as a holiday home for the first time since the outbreak of war, and from that time groups of 10 to 15 children were sent for a fortnight's holiday.

9. — ARRANGEMENTS FOR PHYSICAL EDUCATION AND PERSONAL HYGIENE.

There is no change to report in the teaching arrangements since these were described in a previous report.

School Camps.

Necessitous school children were sent in the summer, 1946, to Belmont Camp. 200 Protestant children went with teachers and helpers after passing a medical examination for cleanliness and freedom from infection for a fortnight's holiday. There was no doubt about the enjoyment of the experience or the benefit derived but the experienced officers in charge of the children felt that the numbers were too great to permit of their getting to know the children, and the ready catering and cooked meals and facilities generally were rather a disadvantage than otherwise.

60 Roman Catholic children had a week under the usual and more favoured arrangements in school buildings at Limekilns.

Camp School.

The arrangements described in the previous report whereby 200 children from each of five schools went with their own teachers and helpers to Belmont Camp for a fortnight during the school session were repeated in 1947, but unfortunately the period allocated to Dundee was so early and the severe weather so late that the first two groups were unable to take advantage. Three school groups, however, were sent in April-May, and it may safely be said that the experience is of great value in every way.

10. — OTHER ACTIVITIES IN RELATION TO THE HEALTH OF SCHOOL CHILDREN.

The school Dinner Service has developed to such an extent this session that the resources of four cooking depots are taxed to the limit, and additional facilities for dining and also for cooking are urgently required to meet the growing demand. The weekly total meantime is about 47,000, an increase of approximately 4,000 in the past year.

The dinners provided are generally of two courses well cooked and appetizing. It is difficult for the Organiser of School Meals as for the housewife under present conditions to achieve the variety desirable and well-nigh impossible in practice to introduce the 1,000 calories value recommended by Scottish Education Department Circular 209 in the ingredients of a single meal without sacrificing palatability, but the opinion of the meals provided is very favourable on the whole.

On the instruction of the Education Committee samples have been taken at intervals (*viz.*, 6 monthly) for analysis by the City Analyst and the average caloric value per meal of the raw ingredients has been calculated (three monthly) over a week. Calculation and analysis coincided therefore twice in a year. Many factors have to be taken into consideration in assessing the results which are of very limited value in arriving at a fair criticism of the feeding of the children. The figures, however, have been regarded as fairly satisfactory and of some interest and the analyses will continue to be made.

In concluding this report the School Health Services Staff desire to record their very cordial appreciation of the valuable co-operation of the Education Department and Teaching staffs in all matters relating to the health and welfare of the children.

OPHTHALMIC SPECIALIST'S REPORT, 1946-47

The following is a detailed list of cases seen at the Eye Clinic by Dr Allister M. MacGillivray and Dr R. M. Mathers during the session 1946-47.

Dr Allister M. MacGillivray.

	New Cases	Attendances
Refractions	967	2,004
Corneal Ulcer	47	100
Blepharitis	15	31
Conjunctivitis	35	54
Anophthalmos	3	3
Follicular Conjunctivitis	11	38
Choroidal Degeneration (Congenital)	3	3
Chalazion	7	14
Blow	5	7
Foreign Body	1	1
Retinitis Pigmentosa	1	1
Congenital T.D.O.	16	31
Buphthalmos	3	6
Phthisis Bulbi	1	2
Microphthalmos	1	1
Optic Atrophy	1	1
Congenital Cataract	12	29
Dermoid	1	1
Ophthalmia Neonatorum	18	60
Corneal Nebula	15	15
Congenital Coloboma of the Iris	1	1
	<hr/> 1,164 <hr/>	<hr/> 2,403 <hr/>

Dr R. M. Mathers

	New Cases	Attendances
Refractions,	521	869
Corneal Ulcer,	1	3
Blepharitis,	7	20
Anophthalmos,	1	1
Conjunctivitis,	5	8
Follicular Conjunctivitis,	3	6
Lid Abscess,	2	4
Chalazion,	3	4
Subconj. Ecchymosis,	1	1
Hordeolum,	2	2
Buphthalmos,	1	1
Wound,	1	1
Optic Atrophy,	1	1
Abrasion of Cornea,	2	3
Nystagmus,	1	1
Cong. Colob. of Iris and Chor.,	1	1
Phlyctenular Kerato. Conj.,	8	15
Functional Conditions,	1	1
Retinal Detachment,	1	1
Persistent Hyaloid Artery,	1	2
	<hr/> 564 <hr/>	<hr/> 945 <hr/>

Gross Total New Cases.
1,728

Gross Total Attendances.
3,348

Orthoptic Clinic.

Miss Kinnear reports that there were 5,365 attendances at this clinic during the session. She also states that the waiting list is 379; that is to say, there are 379 children waiting to have treatment for squints. These children may not be taken on for treatment for many months to come, and it is eminently desirable that a second orthoptist should be appointed to help Miss Kinnear.

(Signed) ALLISTER M. MacGILLIVRAY.

EAR, NOSE AND THROAT SPECIALIST CLINIC

Session 1946-47

	2-5 Yrs.	5-15 Yrs.
Brought forward from previous session, ...	4	44
New Cases, ...	87	347
Total Consultations, ...	92	443
Diagnoses were made as follows:—		
Negative Examinations, ...	8	27
Ear Conditions—		
Deafness, ...	3	36
Retracted Drum, ...	1	22
Catarrhal Changes, ...	10	19
A.O.M.S.—1 Ear, ...	9	22
Both, ...	—	2
C.O.M.S.—1 Ear, ...	4	23
Both, ...	2	10
Granulations, ...	—	4
Aural Polyp., ...	—	4
Dry Perforation—1 Ear, ...	1	6
Both, ...	—	4
Otalgia, ...	1	13
Wax, ...	—	6
F.B. in Ext. Meatus, ...	—	1
External Otitis, ...	—	3
Furuncle, ...	—	1
Mastoiditis, ...	—	2
Angioma Auricle, ...	1	—
Nose Conditions—		
Obstruction (Mouth Breathing), ...	21	58
Simple Catarrh, ...	5	7
Allergic Rhinitis, ...	1	8
Purulent Rhinitis, ...	—	14
Atrophic Rhinitis, ...	—	1
Hypertrophic Rhinitis, ...	—	2
Coryza, ...	—	13
Epistaxis, ...	—	4
Sinusitis, ...	—	8
Deviation Septum, ...	—	13
Dermatitis (vestibule), ...	—	3
Obstruction Nasolacrimal Duct, ...	1	—
Throat Conditions—		
Enlarged or unhealthy Tonsils and Adenoids, ...	33	164
Tonsils only, ...	10	51
Adenoids only, ...	4	15
Tonsillitis—Acute, ...	12	19
Chronic, ...	—	9
Recurrent, ...	2	49
Cervical Adenitis, ...	5	37
Granular Pharyngitis, ...	—	3
Dysphagia, ...	1	—
Suppurative Parotitis, ...	—	1

Throat Conditions—continued.

2-5 yrs. 5-15 yrs.

Laryngitis—Acute,	—	2
Chronic,	—	1
Ulcerative Stomatitis,	1	—

Referrals—

Removal of Tonsils and Adenoids, ...	32	156
" " Tonsils only,	—	23
" " Adenoids only,	3	12
" " Aural Polyp,	—	2
X-Ray Sinuses,	—	16
Proof Punctures,	—	2
Paracentesis,	—	2
Sub-Mucous Resection,	—	9
Cautery,	—	4
Conservative Treatment — Ears,	2	4

Operative Work—

Removal of Tonsils and Adenoids—		
D.R.I.,	28	164
Maryfield Hospital,	1	16
Removal of Tonsils only,	—	21
" " Adenoids only,	2	18
" " Aural Polyp,	—	4
Mastoid—Schwartz,	—	1
Radical,	—	1
Paracentesis,	—	1
Proof Puncture,	—	3
Autrostomy,	—	1
Sub-Mucous Resection Nasal Septum,	—	5
Partial Turbinectomy,	—	2

DERMATOLOGIST'S REPORT

In submitting my first report after nearly seven years' absence it may be of interest to recall briefly the occurrence of ringworm of the scalp in Dundee. The following table shows the annual number of cases of ringworm of the scalp of all kinds from the establishment of a ringworm clinic in 1914 to 1939.

Session.	No. of Cases.	Session.	No. of Cases.
1914-15,	54	1927-28,	35
1915-16,	59	1928-29,	14
1916-17,	72	1929-30,	5
1917-18,	102	1930-31,	15
1918-19,	153	1931-32,	10
1919-20,	134	1932-33,	8
1920-21,	86	1933-34,	4
1921-22,	102	1934-35,	9
1922-23,	88	1935-36,	19
1923-24,	76	1936-37,	3
1924-25,	72	1937-38,	3
1925-26,	63	1938-39,	4
1926-27,	34		

Total Cases of Scalp Ringworm in Dundee, 1914-1939.

The table shows the great increase in cases towards the end of the first World War, the gradual decline till, with the exception of 10 cases in a children's home in 1935-36, ringworm was almost unknown in Dundee.

Probably due to the movement of children in evacuation schemes during the late war infection was reintroduced and given a chance to get to work once more, and in 1944 a few cases were discovered, heralds of a new epidemic. Unfortunately X-ray facilities were not available nor could thallium be obtained to cause the hair to fall out and enable cases to be adequately treated and the epidemic could not be brought adequately under control. It was not until the middle of June, 1946, that these essential methods could again be used, and by this time an epidemic similar to that which occurred at the end of the first World War was in full swing. Fortunately we have Wood's light available as a means of diagnosing cases of ringworm of the scalp (it has been in use in Dundee since 1928), and there is every prospect that this epidemic will be much more rapidly stamped out than the former one. Periodic visits to schools and the examination of pupils under this light enables early cases and "carriers" to be identified easily, and prompt treatment prevents further spread.

The table below shows the position during the past session. Since the end of the session the decline has continued very satisfactorily.

Ringworm of the Scalp.

No. on Register end of June, 1946—

				Dundee.	Other Areas.
Total,	...	...	...	117	5
School,	...	...	...	99	2
Pre-School,	...	...	...	18	3

New Cases each month from July, 1946, to June, 1947—

		Total.	School.	Pre-School.
1946	July, ...	6 1*	4 1*	2
	Aug., ...	13 2*	11 2*	2
	Sept., ...	6 3*	5 1*	1 2*
	Oct., ...	6	4	2
	Nov., ...	8	5	3
	Dec., ...	7	5	2
1947	Jan., ...	4 8*	3 7*	1 1*
	Feb., ...	6 4*	6 3*	0 1*
	Mar., ...	3 1*	3 1*	0
	Apr., ...	3	2	1
	May, ...	8	7	1
	June, ...	2	1	1
Total, ...		72 19*	56 15*	16 4*

*Other Areas.

No. of New Cases from Separate Schools:—

St Mary, Lochee, ...	...	...	...	10
Ann Street, ...	...	...	...	2
Ancrum Road, ...	...	...	...	2
Tay Street, ...	...	...	...	5
St Martin's, ...	...	...	...	2
Hawkhill, ...	...	...	...	5
Butterburn, ...	...	...	...	2
Dens Road, ...	...	...	...	4
SS. Peter and Paul, ...	...	...	...	3
Clelington, ...	...	...	...	2
Blackness, ...	...	...	...	7
Cowgate, ...	...	...	...	1
St Mary's (Forebank), ...	...	...	...	3
Wallacetown, ...	...	...	...	1
Rosebank, ...	...	...	...	1
St Joseph's, ...	...	...	...	2
Mitchell Street, ...	...	...	...	1
Glebelands, ...	...	...	...	1
Liff Road, ...	...	...	...	1
Rockwell Primary, ...	...	...	...	1

No. on Register at end of June, 1947—

	Dundee.	Other Areas.
Total, ...	25	3
School, ...	15	2
Pre-School, ...	10	1

With the subsidence of the ringworm epidemic more time has been available to devote to other diseases of the skin, and the following table shows the number and type of cases dealt with.

Other Skin Diseases.

			Pre-School.		School.	
			New Cases.	Return Visits.	New Cases.	Return Visits.
1946	July,		0	2	0	2
	Aug.,		0	5	6	4
	Sept.		0	2	5	2
	Oct.,		3	2	8	3
	Nov.,		1	1	7	1
	Dec.,		1	1	8	5
1947	Jan.,		3	1	8	9
	Feb.,		3	4	4	4
	Mar.,		9	5	6	6
	Apr.,		3	7	2	5
	May,		4	3	6	8
	June,		7	10	2	12
Totals, ...			34	43	62	61

Analysis of Other Skin Diseases.

Pityriasis (usually sent as ringworm),	17
Body ringworm,	11
Eczema,	13
Infective dermatitis,	6
Other forms of dermatitis,	3
Scabies,	9
Psoriasis,	5
Furunculosis (boils),	5
Alopecia areata,	4
Other forms of alopecia,	2
Warts,	4
Impetigo,	3
Other diseases of the skin,	14

Total Attendances.

	Total Cases.	Ringworm Scalp.	No Ringworm Found.	Other Skin Diseases.
Cases carried forward from 1945-46—				
Pre-School, ...	21	21	—	—
School,	101	101	—	—
1st Visit—				
Pre-School, ...	60	20	6	34
School,	150	71	17	62
Return Visits of New and C/F Cases—				
Pre-School, ...	338	295	—	43
School,	1,191	1,130	—	61

In conclusion I should like to express my pleasure in resuming my duties after so long an enforced absence, and my gratitude to the staff for their co-operation, especially to Dr Cuthbert and to Dr Gerrard.

(Signed) J. KINNEAR.

TABLE I.

1946-47.

Total number of children examined at:—

	(a) Systematic Examinations.	Other Systematic Examinations.
Ordinary Schools—		
Entrants,	2,403	—
Second Age Group,	2,437	43
Third Age Group,	2,087	21
Secondary Schools—		
Age Group,	303	8
	<hr/>	<hr/>
	7,230	72
	<hr/>	<hr/>
(b) Other Examinations—		
Special Cases,		8,201
Re-inspections by Medical Officer,		17,981

Number of INDIVIDUAL children inspected at systematic examinations who were notified to parents as requiring treatment:—

Entrants,	485
Second Age Group,	453
Third Age Group,	334
Secondary Age Group,	25
Other Systematic Examinations,	14

TABLE II.

The locus of the Housing Schemes under the control of the Corporation, giving the number of houses completed, in course of construction, proposed, and the Act under which erected, or to be erected (from data supplied by the Director of Housing).

Act under which erected.	Scheme or Site.	Type.	Houses Completed.						In Course of Construction.						Proposed to be Erected.					
			1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1919 Act	Lodge	Flatted	...	88	162	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lodge	Tenement	...	8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospital Park	Flatted	...	52	100	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stirling Park	Do.	...	...	116	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Taybank,	Do.	...	...	180	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1923 Act	Craigiebank	Cottage	...	...	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dudhope	Flatted	...	...	88	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Broughty Ferry	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Johnston Ave.	Cottage	...	46	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Broughty Ferry ..	Tenement	...	68	128	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1924 Act	Craigiebank	Flatted	...	...	204	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Alpin Road	Do.	...	52	164	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton	Do.	...	...	264	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stirling Park	Do.	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Steel Houses (Lawton Rd. and Alpin Rd.)	Do.	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1925 Act	Steel House (Alpin Road)	Bungalow	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Strathmore Ave. ...	Tenement	...	...	54	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton (Boot's Pat.)	Flatted	...	...	264	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Graham Street	Do.	...	...	236	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(Boot's Patent) ..	Tenement	...	216	180	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1923/25 Acts—Slum Clearance and Closing Orders—	Arklay Street	Do.	...	66	210	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Corso Street	Do.	...	12	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton Farm	Flatted	...	12	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Harefield Road ...	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Law Crescent	Do.	...	64	196	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1925 Act	Hepburn Street ...	Tenement	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ann Street	Do.	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(Not State Aided)— Glenprosen Terrace	Flatted	...	24	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Graham Street	Do.	...	72	140	72	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Taybank	Do.	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1923/25 Acts—Slum Clearance and Closing Orders—	Dudhope	Tenement	...	24	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Byron Street	Do.	...	36	48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arklay Street	Do.	...	36	72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Wester Clepington I.	Do.	...	90	138	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. II.	Do.	...	96	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Tullideph Road ...	Do.	...	18	66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Do	Flatted	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	West Port	Tenement	...	6	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sandeman Street ...	Tenement	...	...	112	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Queen Street, B.F.	Do.	...	6	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Cleington Road ...	Do.	...	36	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cairst Avenue	Do.	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Wedderburn Street	Do.	...	20	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton Road	Flatted	...	...	92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Moncur Crescent ...	Tenement	...	18	66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Lorne Street	Do.	...	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arbroath Road ...	Do.	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Carnegie Street	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Constitution St.	Do.	...	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cotton Road	Do.	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Ann Street	Do.	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Canning Street	Do.	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kinghorn Road ...	Do.	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Harcourt Street ...	Do.	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Paterson Street ...	Do.	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Ogilvie's Road	Do.	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hilltown I.	Do.	...	3	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bonnybank Road ...	Do.	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Forebank Road ...	Do.	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hawkhill	Do.	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Cross Row	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hill Street	Do.	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	King Street, B.F. ...	Do.	...	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Marshall Street ...	Do.	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Fairbairn Street ...	Do.	...	56	24	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Hospital Street ...	Do.	...	12	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dens Road	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Maitland Street ...	Do.	...	6	36	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bennie Road	Do.	...	...	18	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Balgay Street	Do.	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Wolseley Street ...	Do.	...	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mid Craigie, 1st De.	Do.	...	82	120	300	154	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mid Craigie, 2nd De.	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. & Cot.	Do. & Cot.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hilltown (II.) Nos. 59/69	Tenement	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Queen Street, B.F., 2nd Dev.	Do.	...	...	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gardiner Street	Do.	...	...	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Morgan Street	Do.	...	...	18	54	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Beechwood, 1st De.	Do.	...	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Beechwood, 2nd De.	Do. & Cot.	...	...	92	36	8	...	...	...	...	...	...	...	...	...	...	...	...	...
1930/46 Acts—	Beechwood, 3rd De.	Tenement	42	90	24
	Beechwood, 4th De.	Do.	138								

SYSTEMATIC MEDICAL EXAMINATIONS — 1946-47

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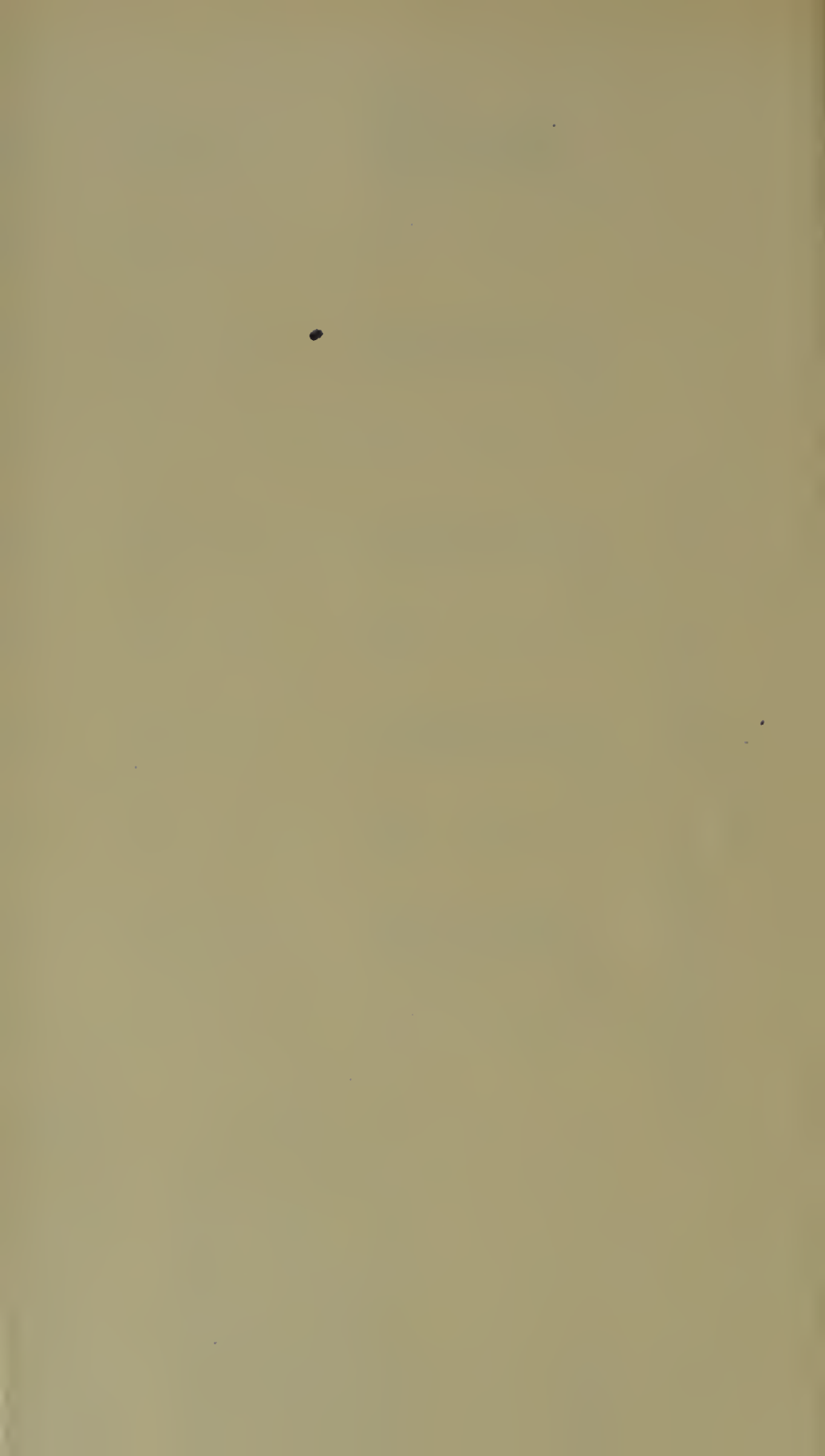


TABLE IV.

Return of ALL Exceptional Children of School Age in the Area
Session 1946-47

Disability.	At Ordinary Schools.	At Special Schools or Classes.	At no School or Institution.	Total.
1. Blind,	—	9	2	11
2. Partially Sighted—				
(a) Refractive errors in which the curriculum of an ordinary school would adversely affect the eye condition,	—	11	1	12
(b) Other conditions of the eye, e.g., cataract, ulceration, etc., which render the child unable to read ordinary school books or to see well enough to be taught in an ordinary school,	2	19	1	22
3. Deaf—				
Grade I.,	813	—	—	813
Grade II.a,	79	—	—	79
Grade II.b,	26	14	—	40
Grade III.,	1	15	2	18
4. Defective Speech—				
(a) Defects of articulation, re- quiring special educational measures,	74	1	—	75
(b) Stammering requiring special educational measures,	82	—	—	82
5. Mentally Defective (Children between 5 and 16 years)—				
(a) Educable (I.Q. approx. 50-70),	14	141	9	164
(b) Ineducable (I.Q. generally less than 50),	—	19	20	39
6. Epilepsy—				
(a) Mild and occasional,	8	11	—	19
(b) Severe (suitable for care in a residential school),	—	—	—	—
7. Physically Defective (Children between 5 and 16 years)—				
(a) Non-pulmonary tuberculosis (excluding cervical glands),	12	21	1	34
(b) General orthopædic condi- tions,	535	41	4	580
(c) Organic heart disease,	19	25	1	45
(d) Other causes of ill-health,* ...	5	105	—	110
8. Multiple Defects—				
Various conditions,	7	18	10	35

*Definition of Ill-health.—“Children who by reason of ill-health are unable to attend ordinary schools or are incapable of receiving proper benefit from the instruction in ordinary schools.”

DENTAL SERVICES

Report by Mr D. A. FINLAYSON, Senior Dental Officer.

The year ending July, 1947, is one in which we are pleased to report definite progress in the dental service. The accompanying tables show full details of the work done, and for the first time we are able to show the dental situation from the point of view of age and sex. This gives a clear view of the position confronting the dental staff. From our records in respect of each school we see the situation at a glance, e.g., percentage requiring treatment at each age and sex.

We are now introducing permanent acceptance forms and children may thus accept treatment during their school life, so long as they attend a school in Dundee.

The accompanying tables also show that a successful beginning has been made with the inspection and treatment of children attending nursery schools and classes, also those attending Day Nurseries.

The service is now a comprehensive one and the supply of dentures in the school service has been gratefully accepted by everyone associated with it. In this connection it is of interest to note that 35 dentures were supplied during the year. Of that number 25 were small dentures of one tooth; 5 of two teeth; 1 of three teeth; 2 of four teeth; all of these were upper front teeth. The remaining two were a partial upper denture of nine teeth and a partial lower denture of twelve teeth, for a girl aged 12, who was found, on examination, to have only four upper teeth and three lower teeth present. An X-ray examination was made and showed no evidence of development of the missing teeth. This girl's medical history shows a record of ill-health beginning with scarlet fever when 13 weeks old, followed by diphtheria at 2 years and phlebitis at 9 years. Since she was supplied with dentures her mother has reported that the girl has improved in her mental attitude towards things in general.

In respect of the dentures mentioned above, it may be of interest to add that the reason for their insertion is generally owing to the permanent teeth having been removed due to sepsis—usually apical abscess. It is therefore important to replace them by the insertion of dentures to maintain the shape of the arch while the jaw and the remaining permanent teeth are developing and erupting. It is also an improvement in the appearance, and thus avoids the child developing a dental self-consciousness.

From the beginning of the new session (August, 1947) we shall be doing our own crown work. Hitherto, this has been done for us by the Dundee Dental Hospital, but it is not only more convenient for the patient to be treated at the clinics, but it also makes the work more interesting and varied for the Dental Officers.

The X-ray service, in which 19 radiographs were taken, is most satisfactorily carried out for us at Maryfield Hospital. For this excellent service we are very grateful.

This year was marked by the introduction of the Orthodontic Service. This is a great step forward, and is already doing good work. It has speedily established itself as will be seen from the statistics: e.g., 101 appliances were made and inserted, and these required 975 attendances for adjustments. In addition, it should be added that 323 impressions were taken and models cast by the Dental Officers.

The hospital service at Maryfield General Hospital, to which 5 sessions weekly of a Dental Officer's and a Dental Attendant's time are devoted, has been very successful, as has been the service at Ashludie Sanatorium (2 sessions weekly) and King's Cross Hospital. The attached figures give the details of the work done in each case and show that here, also, good progress has been made in the first year. The maternity cases form the largest group inspected and treated, and the treatment is much appreciated. Every ante-natal case is examined and offered treatment where necessary, thus providing an excellent field for dental propaganda.

The nursing staffs at these hospitals are given routine examination and treatment, and this facility has been used to advantage.

There are approximately 2000 children who have not been inspected, and in addition there will be another 2000 on the school roll by April, 1948, owing to the raising of the school leaving age. It is therefore important that consideration be given to an increase in the dental staff. Unless this is dealt with at an early date the routine work will fall behind and the "gap" thus created will gradually increase, with the result that the good work done to date will be lost. This is a very pressing problem. It is of the first importance that the Dental Officers have time to give (a) a careful examination of each mouth, and (b) proper treatment. The quality of the work should be the first consideration.

We are grateful to all who have co-operated with us during the year.

DAVID A. FINLAYSON,
Senior Dental Officer.

Dental Inspection and Treatment — Year Ending 31st July, 1947

Number of Children who were Inspected by the Dental Officers.

Age.	Systematic Inspection.	Emergency Cases.	Total.
5	2,075	104	2,179
6	2,158	162	2,320
7	2,138	125	2,263
8	2,325	166	2,491
9	2,278	150	2,428
10	2,187	97	2,284
11	2,214	70	2,284
12	2,113	51	2,164
13	2,096	54	2,150
14	975	22	997
15	422	8	430
16	147	1	148
17	80	1	81
18	13	—	13
	21,221	1,011	22,232

Number of Children who were Treated by the Dental Officers.

Age.	Systematic Treatment.	Emergency Cases.	Total.
5	369	104	473
6	511	162	673
7	535	125	660
8	609	166	775
9	548	150	698
10	541	97	638
11	472	70	542
12	455	51	506
13	370	54	424
14	145	22	167
15	50	8	58
16	10	1	11
17	0	1	1
18	2	0	2
	4,617	1,011	5,628

Systematic Inspection and Treatment in Each Group of Schools.

	Trades and			Junior		
	Pre-Nursing	Academics.	Elem.	Sec.		
	Schools.	Pri.	Sec.	Schools.	Schools.	Total.
No. Inspected,	281	728	944	16,484	2,784	21,221
No. Requiring Treatment,	210	268	403	9,677	1,318	11,876
No. Accepting Treatment,	61	85	81	4,199	534	5,260
No. Actually Treated,	55	77	74	3,955	456	4,617
No. of Attendances,	88	107	144	5,756	671	6,766
Fillings—						
(a) Temporary T.,	0	20	0	811	0	831
(b) Permanent T.,	150	67	150	2,911	545	3,823
Extractions—						
(a) Temporary T.,	2	88	2	4,238	107	4,437
(b) Permanent T.,	38	2	37	698	191	966
General Anæsthetics,	0	0	1	112	16	129
Other Operations,	14	14	42	879	84	1,033
Cleaning,	18	7	30	578	57	690

SYSTEMATIC AND EMERGENCY TREATMENT — 1946-47

Boys and Girls, Age 5-18 Inclusive

	Central Clinic.			Lochee Clinic.			Kilcraig Clinic.			Total	Total Emer.	TOTAL.
	Mr Anderson	Miss	Mears	Miss Millar	Miss McArthur	Miss McArthur	Syst.	Emer.	Syst.			
(1) No. Inspected,	Syst. Emer.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.	Syst.
(2) No. Requiring Treatment,	4,767	350	6,442	258	3,014	185	21,221	1,011	22,232	1,011	22,232	22,232
(2a) No. Accepting Treatment,	2,863	350	3,145	258	3,773	185	11,876	1,011	12,887	1,011	12,887	12,887
(3) No. Actually Treated,	1,015	350	1,264	258	1,988	185	5,260	1,011	6,271	1,011	6,271	6,271
(4) No. of Attendances,	871	350	1,106	258	1,739	185	4,617	1,011	5,628	1,011	5,628	5,628
(5) Fillings—	1,130	418	1,607	345	2,147	250	6,766	1,235	8,001	1,235	8,001	8,001
(a) Temporary Teeth,	214	30	74	13	254	19	831	75	906	75	906	906
(b) Permanent Teeth,	949	62	1,017	39	1,009	28	3,823	148	3,971	148	3,971	3,971
(6) Extractions—												
(a) Temporary Teeth,	770	318	874	207	1,997	174	4,437	863	5,300	863	5,300	5,300
(b) Permanent Teeth,	193	73	279	29	287	31	966	165	1,131	165	1,131	1,131
(7) General Anaesthetics,	16	30	15	6	59	8	129	50	179	50	179	179
(8) Other Operations,	153	95	390	126	115	76	1,033	339	1,372	339	1,372	1,372
Cleaning,	102	10	398	22	62	3	690	36	726	36	726	726
(9) Half-Days Devoted to Inspection,	28		41½	40	18½		128		128		128	128
Half-Days Devoted to Treatment,	264		277½	319½	338		1,199		1,199		1,199	1,199
(10) No. of Children Treated Privately,	61		120	61	38		283		283		283	283
(11) No. of Children Absent at Inspec.,	699		813	964	246		2,722		2,722		2,722	2,722
(12) No. of Dental Notices Not Retd.,	195		224	420	88		927		927		927	927
No. of Dentures Inserted,	10		14	5	6		35		35		35	35
No. of Dentures Repaired,	1		3	0	2		6		6		6	6
Acrylic Inlay Inserted,	0		1	0	0		0		0		0	0
No. of Cases Referred for X-Ray,	1		10	0	1		12		12		12	12

PRE-SCHOOL.**Inspection and Treatment of Children in Day Nurseries and
Emergency Cases.**

	Systematic.	Emergency.	Total.
No. of Children Inspected,	72	90	162
No. of Children Treated,	2	90	92
No. of Attendances,	2	113	115
Fillings (Temporary Teeth),	5	27	32
Extractions (Temporary Teeth), ...	0	85	85
General Anæsthetics,	0	20	20
Other Operations,	0	52	52

**Inspection and Treatment of Children in Nursery Schools and
Nursery Classes.**

No. of Children Inspected,	368
No. of Children Treated,	51
No. of Attendances for Treatment,	59
Fillings, Temporary,	58
Extractions, Temporary,	20
Other Operations,	15
General Anæsthetics,	2

BELMONT CASTLE (Deaf and Dumb)

No. of Children Inspected,	23
No. of Children Treated,	5
No. of Attendances for Treatment,	5
Extractions, Temporary,	7

HOME VISITS BY DENTAL ATTENDANTS

No. Visited,	1,243
No. Actually Seen,	760
No. Agreed to Attend Clinics,	325
No. Actually Attended,	211

CITY POLICE INSPECTION

Number Examined,	43
Number of Attendances,	60

ORTHODONTIA.

	Schools.	Ashludie Sanatorium.	Total.
Consultations,	129	1	130
Impressions,	323	8	331
Appliances Fitted,	101	2	103
Appliances Repaired,	30	0	30
Extractions—			
(a) Temporary Teeth,	42	0	42
(b) Permanent Teeth,	120	0	120
General Anæsthetics,	5	0	5
Attendances for Adjustments,	975	16	991
No. of Cases Referred for X-ray, ...	7	0	7

Ashludie Sanatorium.

	In-Patients.	Staff.	Total.
No. Inspected,	294	34	328
No. Treated,	107	32	139
No. of Attendances,	316	74	390
Fillings—			
(a) Temporary Teeth,	0	0	0
(b) Permanent Teeth,	149	60	209
Extractions—			
(a) Temporary Teeth,	1	0	1
(b) Permanent Teeth,	243	14	257
General Anæsthetics,	1	0	1
Other Operations,	127	19	146
Cleaning,	28	12	40
Dentures Inserted,	26	0	26
Dentures Repaired,	3	0	3

King's Cross Hospital Patients.

No. Inspected,	42
No. Treated,	12
No. of Attendances,	19
Fillings (a) Temporary Teeth,	5
(b) Permanent Teeth,	2
Extractions (a) Temporary Teeth,	23
(b) Permanent Teeth,	2

King's Cross (Infectious Diseases) Hospital Nursing Staff.

No. Inspected,	34
No. Treated,	16
No. of Attendances,	19
Fillings (Permanent Teeth),	36
Other Operations,	1
Cleaning,	4

Maryfield General Hospital.

	In-Patients.	East House.	Staff.	Total.
No. Inspected,	39	16	134	189
No. Treated,	37	16	81	134
No. of Attendances,	53	18	126	197
Fillings—				
(a) Temporary Teeth, ...	0	0	0	0
(b) Permanent Teeth, ...	1	0	193	194
Extractions—				
(a) Temporary Teeth, ...	5	0	0	5
(b) Permanent Teeth, ...	177	41	50	268
General Anæsthetics,	30	0	3	33
Other Operations,	7	1	11	19
Cleaning,	2	0	30	32
Dentures Inserted,	1	0	0	1

MATERNITY CASES.

Maryfield Hospital.

	Ante-natal.	Post-natal.	Total.
No. Inspected,	1,175	3	1,178
No. Treated,	246	3	249
No. of Attendances,	315	6	321
Fillings,	114	0	114
Extractions,	706	4	710
General Anæsthetics,	33	2	35
Other Operations,	47	3	50
Cleaning,	90	0	90
Dentures Inserted,	11	1	12

Lochee.

	Ante-natal.	Post-natal.	Total.
No. Inspected,	144	0	144
No. Treated,	21	1	22
No. of Attendances,	36	3	39
Fillings,	12	0	12
Extractions,	31	9	40
General Anæsthetics,	3	1	4
Other Operations,	21	2	23
Cleaning,	5	0	5
Dentures Inserted,	2	0	2

SANITARY SERVICES

Report by Mr W. M. SMITH, Chief Sanitary Inspector.

SANITARY DEPARTMENT,
17 WEST BELL STREET,
DUNDEE.

To the Honourable,

The Department of Health for Scotland; and
The Lord Provost, Magistrates, and Councillors—
the Local Authority of the City of Dundee.

LADIES AND GENTLEMEN,

I have the honour to submit my Annual Report for the year 1947, which has been prepared in accordance with the Circular of the Department of Health for Scotland of date 22nd January, 1948.

INTRODUCTORY

During hostilities everyone was familiar with the expression " back-room boys " and their unseen share in the war effort. It was impressed upon the man in the street that very few could ever really comprehend and appreciate the vast amount of work involved in conception and completion of new and astounding devices.

This is equally true of all that goes on behind the scenes and is perhaps applicable in a fashion to the many individual Departments of Civic Administration which are welded together to form a whole known as Local Government.

A Sanitary Department, for instance, to many people exists solely for the purpose of receiving complaints about choked drains and like matters, or as a means for bringing to book the dilatory house proprietor or agent; others again look upon it as the proper quarter to direct attention to the non-keeping quality of milk, or, again, it may be utilised as the arbiter in tenemental squabbles. Beyond these, however, to many of our inhabitants it has no place in the scheme of things.

Indeed, each separate entity of the whole is known solely for the limited sphere indicated by its name.

Perhaps if the public were to realise the many functions performed by the various sections of Local Government, of which the name gives no hint, more interest would be taken in the structure which exists, not to hamper their existence, but to ensure freedom

from perils which endanger health in the air we breathe, in the food we eat, the water and other liquids we drink, our places of employment and the dwellings in which we live, and many other safeguards enjoyed by all and for the most part taken for granted.

For example, the Sanitary Department in this City, apart from being responsible for duties under the Public Health Acts, is entrusted, successfully, we hope, with many responsibilities not envisaged by the general public and to illustrate the matter further it might be appropriate to append a list of the various Acts and Orders for the administration of which it is charged in whole or in part:—

Burgh Police (Scotland) Acts, 1903 and 1911.

Shops Acts, 1912/1938.

Young Persons (Employment) Act, 1938.

Milk and Dairies (Scotland) Act, 1914, and Amendment Act, 1922.

Milk and Dairies Order, 1934.

Milk (Special Designations) Orders (Scotland), 1936/44.

Foods and Drugs (Adulteration) Act, 1928.

Artificial Cream Act, 1929.

Condensed and Dried Milk Regulations, 1931.

Public Health (Preservatives, etc., in Food) Regulations (Scotland), 1925/1940.

Merchandise Marks Act, 1926.

Agricultural Produce (Grading and Marking) Act, 1926.

Public Health (Meat) Regulations (Scotland), 1932.

Factories Act, 1937. *

Fertiliser and Feedingstuffs Act, 1926.

Pharmacy and Poisons Act, 1933.

Rag Flock Acts, 1911/1928.

Housing (Scotland) Acts.

Rent and Mortgage Interest Restrictions Act, 1920/1939.

Port Sanitary Regulations (Scotland), 1933/1945.

Public Health (Imported Food) Regulations (Scotland), 1937.

Rats and Mice (Destruction) Act, 1919, and Order, 1943.

Smoke Abatement Acts.

Sale of Horse Flesh Regulation Act, 1889.

Defence (Sale of Food) Regulations, 1943.

Labelling of Food Order, 1946.

Local Acts concerning Water Supplies, Ice-Cream Premises, etc., etc.

Perchance these few observations will serve to show that Officials may have quite a few arrows in their quivers and that the good of the community is being served at all times in many and diverse ways.

The year with which this Report is concerned held many disappointments, especially in the field of housing which, locally, was below expectations. If the rate of house provision is not speeded up considerably the fulfilment of the programme will recede further and further as will the hopes held by many of securing the houses they so desperately require.

Throughout 1947, in connection with the Priority Distribution of Building Materials Order, 1,001 applications for materials where-with to carry out repairs or renewals were received from tradesmen and the necessary inspections carried out: 983 were granted and 18 refused.

The amount of time given to these inspections as also the clerical, etc., work involved led to the matter being given consideration by the appropriate powers in response to the request of various local authorities. It was decided, in the light of experience, to amend the working of the scheme whereby priority materials were made available for minor repairs without priority permits, subject to the proviso that merchants satisfy themselves of the urgency and necessity of the work before supplying the requisite material. A limit to the amount of material allowed in such circumstances was laid down in a memorandum issued by the Department of Health for Scotland. The privilege granted was not abused by tradesmen, and a greater latitude and freedom from "certification" could reasonably be considered. The revised scheme came into force in December, and was of all-round benefit, saving the time of tradesmen and Departments alike; likewise it was welcomed by those requiring repairs as a considerable time lag was eliminated.

Unfortunately we are still hampered by shortages, and many people are chafing at the lack of materials whereby to accomplish long overdue repairs, which, as time goes on and nothing is done, become more extensive and correspondingly more expensive. However, let us be optimistic and hope.

From the 1st October, Mr I. B. M. Chalmers, Solicitor, of this City, took up the duty of Burgh Prosecutor, and all prosecutions previously forwarded by this Department to the Crown Procurator Fiscal for presentation in the Sheriff Court are now diverted to Mr Chalmers. It is to be noted that the first prosecution submitted by this office through the new channel was successful.

Throughout the Report will be found an account of my stewardship for the year, and I here take the opportunity of acknowledging with thanks the assistance received from the Chief Constable's and other Corporation Departments in 1947 and the efforts of my staff in the discharge of their many duties.

Staff.

At 31st December, 1947, the established posts in the Department numbered 24, i.e.,

- 1 Chief Sanitary Inspector,
- 1 Assistant Chief Sanitary Inspector,
- 4 District Sanitary Inspectors,
- 5 Assistant District Inspectors (1 of whom undertakes duties of Port Sanitary Officer),
- 8 District Officers,
- 2 Probationary Sanitary Officers,
- 1 Chief Clerk,
- 1 Clerk,
- 1 Clerkess/typist.

There is also a youth for telephone/messenger duties.

Death-Rate: Density of Population and Acreage.

The death-rate per 1,000, as corrected, for 1947 was 13.7, as against 14.1 in 1946 and 13.6 in 1945.

The population, as estimated to the middle of 1947 by the Registrar-General was 180,730.

The acreage of the City, excluding foreshore, is 12 294. This works out at 14.70 persons to an acre.

Rainfall.

The total rainfall in Dundee, as noted at the Official Station, Mayfield Hostel, Dundee, was 34.43 inches as against 32.95 inches last year. The figures for each month are as follows:—

January,	3.98 inches
February,	2.86 „
March,	3.73 „
April,	2.55 „
May,	5.57 „
June,	3.40 „
July,	2.78 „
August,	0.75 „
September,	2.88 „
October,	1.98 „
November,	2.03 „
December,	1.92 „
Total,	<u>34.43</u> „

Showing an average fall of 2.87 inches per month as against 2.75 inches in 1946 and 3.04 inches in 1945.

Water Supply.

The Corporation are responsible for the Supply of Water to the City. The Department particularly concerned therewith is under the charge of Mr. G. Little, B.Sc., A.M.Inst.C.E., A.M.Inst.Mun.E., who reports thereon as follows:—

“ The sources and system of supply along with the area and population supplied remain as hitherto, nor is there any change on the reservoir capacities, surface and extent of catchment areas.

Consumption.

The average daily consumption of water for all purposes for the year ending 15th May, 1947, was 12,038,050 gallons. This represents a consumption per head of the population supplied of 59.0 gallons, of which 38.4 is for domestic and non-metered supplies and 20.6 for trade and general industrial purposes supplied through meter. The minimum daily consumption for the same period was 8,732,000 gallons and the maximum 14,315,600 gallons.

Chemical Analyses of Waters.

The following are the average Chemical Analyses of the Lintrathen and Crombie Waters as supplied during 1947:—

	Lintrathen.	Lintrathen (Filtered).	Crombie.
P.h. Value,	6.9	6.7	7.2
Colour (Hazen Scale),	13 m.m.	4 m.m.	7 m.m.
Hardness in Clarke's Degrees—			
Temporary,	0.30	0.56	1.00
Permanent,	0.75	2.20	3.46
Combined Alkalinity (as Ca CO ₃)	16 p.p.m.	32 p.p.m.	49 p.p.m.
Combined Chlorine,	10 p.p.m.	15 p.p.m.	19 p.p.m.
Nitrates,	0.37 p.p.m.	1.79 p.p.m.	3.15 p.p.m.
Nitrites,	None	None	None
Free Ammonia, .....	.092 p.p.m.	.010 p.p.m.	.002 p.p.m.
Albuminoid Ammonia, .....	.090 p.p.m.	.048 p.p.m.	.057 p.p.m.
Lead or other Poisonous Metal,	None	None	None

Bacteriological Analyses of Waters

Weekly bacteriological analyses taken throughout 1947 of the filtered and unfiltered waters put into supply give the following results:—

	B.Coli absent in 100 c.c.	B.Coli present in 10 c.c. or less.
Filtered and Chlorinated Water—		
Lintrathen*	98%	None
Crombie	87.7%	2%
Unfiltered Water, after Chloramine Treatment—		
Lintrathen (taken at Clatto), ...	84.6%	5.8%

*Proportion filtered at Gage."

Sources of Water Supply — Other than Corporation.

There are 31 wells and springs, the water from which is used as follows:—

For Domestic Purposes,	17
Brewing and manufacture of aerated water,	2
Purposes incidental to industry (cooling, flushing sanitary conveniences, horticulture, and watering animals),	11
From which public are liable to drink,	1

All the wells in use for domestic purposes are situated in the rural areas of the City, and in general are removed somewhat from existing Corporation mains.

As in former years, samples of each supply were submitted for chemical and bacteriological examination and, while results generally are satisfactory, a careful watch will be kept on those known to have some risk of pollution and as opportunity occurs an endeavour made to have Corporation mains water provided.

Domestic Water Supplies — Sinks, Etc.

The following table shows that there are 532 houses within the city lacking an internal supply of water. Of these, 115 have already been dealt with under the Housing Acts by way of Closing or Demolition Orders, etc., or are included within Clearance Areas.

Domestic Water Supplies—Sinks, Etc.

Ward.	No. of Houses.	WATER SUPPLY.						
		ROOMS				4	On Stairs, Landings, &c.	In Courts, Areas, &c.
		1	2	3	&over.			
1	26	25	1	—	—	26	—	
2	36	63	21	2	—	81	5	
3	82	66	15	1	—	66	16	
4	67	23	20	16	8	22	45	
5	30	15	9	4	2	11	19	
6	95	78	14	3	—	92	3	
7	11	1	6	3	1	2	9	
8	21	14	7	—	—	19	2	
9	47	33	14	—	—	46	1	
10	18	3	8	7	—	2	16	
11	32	2	10	20	—	—	32	
12	17	14	2	—	1	15	2	
Totals.	532	337	127	56	12	382	150	

During the year 1947, 7 houses, including 2 houses which had been voluntarily closed and empty for several years, were each provided with a sink and internal supply of water direct from the public main, while in 151 instances additions and renewals were made to existing facilities.

Public Sewerage.

The construction and maintenance of the sewers within the City are under the charge of Mr David B. McLay, B.Sc., M.Inst.C.E., who reports as follows:—

New Sewers Laid.

“ During the year commencing 16th May, 1947, 2.16 miles of new sewers have been laid, making the total length of sewers in the city 199.06 miles, and the sum of £2,510 has been expended on the work of maintenance and repair.

Dighty Valley Sewer.

This sewer is now completed and discharges into the river below low-water mark near the western end of Monifieth. The sewer will serve an area of approximately 2,600 acres from Downfield to Monifieth on both sides of the Dighty Valley.

Kingsway West Outfall Sewer.

The first section of this sewer was begun in November, 1947, and will ultimately extend from Coupar Angus Road at Kingsway West to Invergowrie Bay, where it will discharge below low-water mark. The line of the sewer will follow approximately the line of Kingsway West and will serve the Industrial Estate and the other factories in this area and also future developments in the area recently added to the city on the western side.

Flooding.

During the period under review no serious cases of flooding were reported although a number of minor complaints were received from premises with basements in the central area of the city."

Rivers Pollution.

There is nothing to report in connection with the above heading except to state that the position remains unaltered from last year. Two samples of water were obtained from the Dighty at the request of the City Engineer in connection with the question of the effects of industrial effluent on the stream. Both samples contained a noticeable amount of sedimentary material. On incubation at blood heat the ordours were of a decayed vegetable nature. There was also indication of remote sewage contamination.

Scavenging and Refuse Disposal.

Mr J. D. Henry, the Cleansing Superintendent, kindly supplies the undernoted information in connection with the activities of his Department.

" Owing to the steady growth of the City in the Lochee, North and East Districts, 1947 has been a year of constant reorganising of collection routes and sweeping beats. These districts will be in constant state of change for some considerable time, until the various schemes are completed. Due to the modern methods of siting houses, both permanent and temporary, the cost per visit for cleansing purposes has risen considerably. A great deal more consideration ought to be given in all schemes to the most economical

access for cleansing. The cost per visit per bin in the tenement areas is 1½d and in the new schemes 4d.

The weight of House and Trade Refuse collected during 1947 totalled 49,100 tons, an increase of 4,438 tons over 1946. The average of 15½ cwts. per 1,000 population is in keeping with other cities of comparable size.

Salvage shows a slight increase, being £10,084 as against £9,791 last year.

The amount for Waste Paper being £4,235, against £4216, and for Waste Food, being £964 against £826.

With more co-operation from the public these figures can be considerably increased with benefit in the national interest and to the local ratepayer's pocket.

The exceptionally long period of severe weather during January, February and March, accompanied with heavy snowfalls, ran up a bill for £35,000. It is, however, to the credit of the department that no major hold-up of transport in the City occurred.

Several alterations to design of parts of the machinery at the Refuse Disposal Plant have been carried out and are proving very successful. These alterations are showing their effect by reducing maintenance costs considerably.

Revenue from Public Conveniences has dropped, and I attribute this to the large reduction of troops, etc., in the surrounding district.

Proposals have been submitted to the Cleansing Committee for extension of Refuse Disposal Facilities which are required owing to the growth of the City."

The problem of increased facilities for refuse disposal owing to the growth of the City is one which continues to occupy the attention of the Superintendent and the Cleansing Committee. Meantime 65% of all refuse is dealt with at the Destructor Plant and the remainder disposed off at various controlled tips on the outskirts of the City.

Ashbins, etc.

During the year 133 new bins were laid down in lieu of receptacles no longer fit for use.

The supply situation in relation to bins is similar to other commodities and they have to remain in service longer than their condition warrants.

At one house on the outskirts of the city the use of an ashpit was discontinued and a bin provided.

While writing on this subject it might be opportune to mention the strike of scavengers which took place early in the year. Refuse collection was at a standstill except for the skeleton services maintained by the inspectors of the Cleansing Department. Bins speedily became full and overflowing at all properties and were the cause of much nuisance, and where the bell cart service was the means of removal, refuse was piled up in rear areas, etc. So bad indeed did it become that it was deemed advisable to institute special inspections and report to the Cleansing Superintendent those cases considered requiring emergency action. In all 554 visits were made. With the resumption of the scavengers things were brought back to normal, and the populace made keenly aware of the importance and comfort derived from systematic and regular refuse removal.

Earth Closets, Privies and Privy Middens.

Position as at 31st December, 1947:—

Ward.	Conveniences.	Serving	
		Houses.	Other Premises.
1	—	—	—
2	8	6	2
3	19	22	—
4	39	50	1
5	22	22	—
6	—	—	—
7	6	6	1
8	9	10	1
9	3	3	1
10	33	40	2
11	27	32	—
12	—	—	—
	166	191	8

The 166 conveniences shown in above table are classified as follows:—

Privies	135	} Serving Houses.
Privy Middens	6	
Chemical Closets	16	
and		
Privies	8	} Serving Premises other than houses.
Chemical Closets	1	

In addition to the above there are 3 vacated houses situated in Ward 5 (formerly served by privies) undergoing reconstruction, including the installation of modern water-closet accommodation.

Many of these conveniences are situated in the recently acquired portion of the City which is not wholly provided with sewerage facilities.

Water Closet Basins and Other Sanitary Fittings.

During the year the undernoted fittings and materials were used in connection with repairs and improvements undertaken at properties throughout the City:—

539 water closet basins.	236 feet fireclay drain pipe.
37 baths.	32 C.I. drain traps.
150 washhand basins.	15 fireclay drain traps.
44 wash tubs.	95 lead waste traps.
3 wash boilers.	419 feet vent pipe.
1,751 feet of waste pipe.	96 water closet cisterns.
4,143 feet water pipe.	2 automatic flushing cisterns.
1,231 feet soil pipe.	6 hot water boilers.
361 feet flushing pipe.	6 hot water storage cisterns.
30 feet C.I. drain pipe.	6 urinals.

In addition, 4 washing-houses, complete with fittings, were built as supplementary to existing accommodation at large houses which were reconstructed and sub-divided.

Plans Submitted to the Works Committee.

All plans of new buildings, as well as those detailing improvements, alterations or reconstructions are given prior examination before their submission to the Works Committee. When amendments are considered necessary or desirable an opportunity is afforded those submitting the plans to effect the required alteration before the meeting of the Committee concerned.

Throughout 1947 some 221 plans were examined.

In addition to these plans, warrants are granted directly by the City Engineer in cases where the work is of a minor nature.

Schools.

The following information is supplied by Mr J. D. Collins, Direction of Education:—

“ Owing to the continued shortage of materials, repairs and maintenance of school buildings during 1947 have been confined to matters of emergency. During the year air-raid shelters and baffle walls in the majority of schools have been removed; but there are still a number of schools where the shelters have still to be demolished. Alterations and conditioning to the Pre-Nursing School at Seymour Lodge, Perth Road, have commenced, and it is hoped that this will be completed as soon as possible after the opening of the 1948/49 session. The school is housed temporarily in Dudhope School, St Mary Place. Internal and external repainting at Glebelands School was commenced in August. Re-conditioning of the practical room at Fairmur Special School, destroyed by fire in 1945, has been put in hand, and the room will shortly be ready for occupation.

The craft room at Dudhope School has been rehabilitated, and is now in use for technical instruction of boys. It is hoped similarly to have a room at St Mary's School, Lochec, reconditioned and re-equipped to provide practical instruction for boys.

A start has been made with the erection of a prefabricated hut at Morgan Academy to relieve the pressure on occupation there. No progress, however, has been made either with the Primary School at Mid Craigie or Stobswell Secondary School Annexe. The question of additional accommodation for Grove Academy pupils at Seafeld House, Broughty Ferry, is under consideration.”

Supplementary to the foregoing, two complaints were received here in connection with schools; the first concerned rat infestation and the second a defective urinal. Apropos of the rat complaint, pest destroyers from the Department of Agriculture for Scotland took action, and certain repairs to the fabric including gratings on underfloor ventilation openings and the heating pipe exits from the stokehold were carried out under our directions. No further complaints of rat infestation have been received. Regarding the urinal accommodation: this has been repaired and is now in proper condition.

Trades School, Ann Street.—These premises, used for pre-vocational training, were not provided with heating facilities. In an attempt to overcome this deficiency open coke-burning braziers were installed but proved unsatisfactory—complaints being received in connection with fumes therefrom. It was decided to instal gas heating and, pending its introduction, small stoves of the “shelter” type were fitted and provided with vent pipes carried through the roof. Later, brick fireplaces, the work of the students, were constructed in the fitters’ and bricklayers’ workshops, and gas fires have also been introduced into these workshops and throughout the entire building and the “shelter” stoves done away with.

Complaints.

The number of complaints which were intimated either verbally or by letter totalled 5,122 — the figure for 1946 being 3,863.

This increase in numbers is very marked and a pointer to a return to routine inspections on a pre-war scale. It also indicates clearly the condition into which so many properties have been allowed to fall owing to lack of repair.

The complaints covered a wide range, and under the heading General Nuisances will be found details of some of the more unusual types.

Groundless complaints numbered 241 as opposed to 116 last year. This figure, apart from the usual unsubstantiated intimations, is enhanced by the spate of complaints received in November regarding damp houses, etc., when the sudden rise in temperature affected the country. Little need be said concerning this phenomenon as in all probability the stories of running walls, dripping ceilings and clammy furniture will become legendary tales for long enough.

Statutory Notices or Intimations.

To secure compliance with the requirements of the Public Health (Scotland) Acts and other legislation administered by this Department 10,797 notices or intimations, written or verbal, were transmitted to property owners or agents or authors of nuisances, all of which received or are receiving attention.

General Nuisances.

Towards the detection of nuisances 41,779 visits were made in the course of which 9,251 were discovered and steps taken forthwith for their removal.

These nuisances are classified under the following headings:—

Choked and defective water closets, sinks, drains, etc.,	4,502
Choked and defective rhones and rainwater conductors	468
Leaking roofs,	609
Defective Chimneys,	253
Internal condition of houses (plasterwork, woodwork, glazing, dampness, etc.),	1,778
Defective Ashbins,	106
Dirty and Verminous Houses,	302
Rat Infestation,	178
Dirty Stairs, Passages and Water Closets,	94
Miscellaneous,	961
	<hr/>
	9,251
	<hr/>

Nuisances fall into two categories — the usual and the unusual — and it is among the latter that the more interesting are found. Complainers inevitably expect after lodging their complaint that a complete and speedy cure will be forthcoming. This is not always so easy and in some instances ingenuity has to be employed when orthodox methods have failed.

To cite a few outstanding complaints:—

A tenant of a “ prefab ” reported a wasp “ bike ” under the floor of his home. The matter was taken up with the factor and advice given on the best way to deal with the nuisance. Arrangements were completed for tackling the menace, which was to be done late in the evening when the wasps had ceased their activities for the day. Earlier reconnaissance revealed the hive was reached via a small gap in the brickwork of the foundations of the house. The hive itself was attached to the inner surface of the brickwork, the undersides of the floor and both sides of a joist. The initial step was to close the entrance to the hive, and after this was accomplished the underfloor space where the hive was located was enclosed by boards. Two holes, one on each side of the joist affected, were bored in the floor through which a generous supply of chloroform was poured. When time had been allowed for the chloroform to do its work the flooring over the hive was removed disclosing an amazing spectacle. The hive was about a yard long, conical in shape and tapered from a base 2 ft. wide to 4 ins. at the apex; so firmly was it adhering to the joist that this had to be cut, and the weight was such that on the joist being moved the hive fell off. By this time the wasps were showing signs of returning animation so

everything was rapidly transferred to a pail, removed outside, soaked with petrol and set ablaze. In the resulting fire hundreds of wasps and thousands of grubs were destroyed. Happily for all concerned these measures proved effective.

Intimation from the police regarding the accumulation of refuse in the unoccupied upper floor of a tenemental property was investigated. It was found that squatters on the property had been using the empty houses as a convenient method of ridding themselves of miscellaneous refuse consisting of ashes, old beds, mattresses, etc. These illegal tenants had removed and it was impossible to trace them so that they might be charged with responsibility as authors of the nuisance. The Cleansing Department came to the rescue and removed the refuse. A certain type of squatter, through complete disregard for law and order, can cause many awkward situations between a sanitary department and house factors, who repudiate liability for damage caused by such occupiers.

A factory cooling pond gave rise to nuisance during the hot weather. An examination verified the strong complaints received regarding smell therefrom and also revealed that unauthorised dumping of household refuse was taking place. As the pond was no longer in use for its original purpose the proprietors, on being informed of the situation, agreed to have it filled up.

The parking of buses in a narrow street called forth protests from nearby residents on the score that when the engines were started up clouds of smoke and fumes from the exhaust pipes entered their houses. There was some justification for this contention, but it was a delicate point as to whether or not it constituted a nuisance in terms of the Public Health Acts. The aid of the Chief Constable was enlisted, and following interviews with the bus owners an assurance was given by them that they would continue in their search for alternative accommodation, restricted facilities at their garage premises being the reason for the street being used at all. At the same time they agreed to refrain from parking buses in the thoroughfare in question except at abnormal periods, during which it was agreed to allow one vehicle to be parked at a point on the street removed from the premises of the complainers, who expressed satisfaction at the new arrangement.

During the investigation of a case of overcrowding an officer of the department was amazed to see within the house a trap door in the floor open and a man appear. It transpired that the tenant,

whose shop (registered as a Place of Public Refreshment) was immediately below his house, had communication therewith by an unsuspected stair. This was a contravention of the Burgh Police (Scotland) Act, Amendment Act, 1911, which stipulates there shall be no direct communication between registered premises and a private dwelling-house. The removal of the staircase and the sealing up of the trap door were ordered and carried out.

Lastly, a tenant's desire to ensure a coal supply for the winter might have resulted in a spate of complaints of flooding had it not been for early discovery. This tenant lived in an attic, and to augment the fuel supply conceived the idea of going on to the roof via the window and using the deep trough or rainwater gutter as storage accommodation for coal. By chance when an inspector was in the house this was discovered and, needless to say, stopped immediately.

Verminous Houses and Persons.

205 complaints relative to verminous houses were dealt with during 1947, and 143 rooms in 100 houses treated; 12 rooms in 6 Corporation houses are included in these figures.

In cases of light infestation remedial measures are prescribed and guidance given to tenants who wish to disinfest their own homes.

Heavily infested houses, however, call for expert attention, and after certain requirements have been carried out, i.e., stripping of walls, removal of skirting boards and such like, we spray or fumigate, and in some cases both methods are employed. Re-papering is discouraged for a period of time at least, and factors requested to make good defective plaster etc.,

Several requests were received from tenants for corroboration in their applications for new furniture on the score that they were removing to new houses and did not wish to take their old and "buggy" effects with them. This is a good idea, and those who follow it as well as securing comfort for their own households obviate the risk of contaminating a new property.

Miscellaneous fumigation for beetle, etc., infestations were carried out as necessity arose.

Verminous Persons.—No case of this nature came to our notice during the year.

Whitewashing and Painting Common Stairs and Passages

1,410 visits were made during the spring and late summer in connection with a survey of stairs and passages to ascertain the number which required whitewashing and/or painting. Later in the year 780 Notices involving 1,461 stairs or passages were issued to owners or agents intimating the necessity for work of this nature to be undertaken. By the end of the year 353 stairs or passages had been re-decorated and orders for a further 178 were known to be in the hands of tradesmen. Those responsible for the remainder were contacted and assurances given that the work would receive attention. The labour position for this class of work and shortage of material are partially responsible for the slow rate of progress but it is hoped that an improvement in the position will soon come about.

On 128 occasions whitewash brushes were given on loan to those desiring such a facility. Approximately 254 rooms were cleaned.

Back Courts, Areas, Footways, Etc.

Apart from a few exceptions the above were kept in a state which calls for no critical remarks.

The most prolific source of nuisance was the continued improper use by tenants of air raid shelters which still remain on the rear areas of property.

Let us hope the demolition of these erections will soon be commenced and speedily completed and the ground re-instated to its original condition.

Smoke Nuisance.

Forty-two observations of mill, etc., chimneys were taken throughout the year and eleven letters dispatched in connection therewith. In the remaining cases, where necessary, a talk with the works manager or firemen was usually productive of good results. On two occasions a particularly bad chimney was kept under continuous surveillance for periods of 9 hours and the results of these protracted observations transmitted to the owners. In reply they expressed regret and stated an order had been placed for a complete fully mechanised and thoroughly modern boiler plant, delivery of which was expected in the near future. Meantime, supervision of stokers would be intensified in an effort to reduce smoke emission. This and certain repairs to existing plant have improved matters.

At another factory, also awaiting the delivery of new plant, we were informed that after this was installed they were to utilise a higher brick built chimney instead of the present metal one which had been giving offence over a period.

Obsolete or defective plant certainly does not assist the avoidance of excessive smoke emission, but there are times when firemen through inefficient stoking are contributory factors in the nuisance. This need not be, for our inspectorate are always available and willing to give advice to stokers so that firing may be efficient and economical.

We all know from our own domestic experiences that the fuel is not by any means ideal but from promises given, let it be hoped that cleaner coal will be soon forthcoming.

The electrification of factories is to be encouraged and perhaps when all the hydro-electric schemes are completed we shall see more of it. In the meantime we have to be content with the initiative of individual firms. We failed to lose one offending chimney owing to the necessary equipment not being delivered as promised. Let us hope it may appear before long. One factory, previously making their own current, completed arrangements for receiving power from the corporation mains.

At a mill where the boilers were of very old type and the chimney a frequent source of nuisance, preparations for conversion to electric drive are in hand.

Several chimneys in the harbour area were observed to be belching forth excessive smoke. The firms in question were contacted and laid the blame on the fuel supply—a matter in which they were deprived of choice. They intimated their willingness to do all in their power to secure abatement and asked for frequent visits from this Department to observe their firing methods and advise.

Complaint of smuts and grit from chimneys causing nuisance to a nearby firm and eye injuries among the employees was received and investigated. The owners of the guilty chimneys readily believed the charges levelled against them as owing to insufficiency of their coal supply they had to use coke breeze—a fuel unsuitable

for their boilers—and to maintain efficiency the flues had to be blown twice daily. The question of grit arrestors was gone into thoroughly and were found impracticable in this case. It was arranged to discontinue the use of coke breeze in the furnaces and that flues would only be done once a day at an hour when the workers at the complainer's premises had finished. This procedure brought about a great improvement. Residenters in the north end of the city sent a petition complaining bitterly about smoke nuisance from a stalk of a nearby institution. A series of observations were taken and the results submitted to the appropriate Committee of the Local Authority. The Corporation Heating Engineer also reported on the conditions prevailing. The plant at this place has long been unable to cope with the demands made on it, which are greatly in excess of that required when the plant was originally installed. Comprehensive reports on the subject were submitted by the Heating Engineer in 1939 and 1942 but, unfortunately, on both occasions the times were inopportune to carry out the necessary work. The Engineer, however, was convinced that improved stoking methods would do much to reduce the nuisance and supplied the firemen with a set of simple directions. Repairs were also carried out to the flue brickwork and arrangements made whereby a hot water supply to the boiler would be provided.

It is generally realised that smoke nuisance is not wholly confined to industry. Household chimneys contribute their share and in this connection the discharge proceeding from pre-fabricated houses has been the cause of complaint on occasions. The smoke from these low-set chimneys readily enters the upper floors of any nearby houses, causing annoyance to occupiers and compelling the closing of windows.

The City Factor's Department issued a guide to pre-fab. dwellers containing, *inter alia*, easily followed instructions and advice concerning the heating units. If these are followed, smoke nuisance can be reduced and the tenants obtain a better value for the fuel consumed and the monies expended thereon.

The Mines Department of the Ministry of Fuel and Power have been of much assistance in our efforts to keep smoke emission at a minimum. Their Stoker-demonstrator carried out good work and while his principal concern was fuel economy this has to an extent achieved a reduction in the volume of smoke at the chimney

head. Classes for Engineers at the Technical College over a period were productive of good results and it is envisaged that a Class under the heading of "Boiler House Practice for Stokers" should be of material advantage in smoke reduction. Certificates of Efficiency are to be granted to candidates who pass the necessary examination, while better still, a number of firms are giving monetary recognition to stokers who qualify.

Rats and Mice Destruction Act, 1919.

Rats and Mice (Scotland) Order, 1943.

The intensified scheme of rat destruction carried out under our supervision by the operatives of the Department of Agriculture for Scotland and which received prominence in last year's report ended on 15th May, 1947.

175 notifications were received in connection with rat and mice infestation. After preliminary investigation by this Department the occupiers or owners are informed of their statutory responsibility for clearing their premises of the unwelcome visitors and towards this end the services of the Pest Destructors of the Department of Agriculture have frequently been employed. The close co-operation of the Department of Agriculture is very welcome and its continuation emboldens the hope that we may through time reduce the rat menace to a minor status.

During the year, through the medium of gassing, trapping or poison bait, the rodent population of the town was reduced by 5,855.

	Trapped	Poisoned & Gassed	Total
Above ground,	781	2,679	3,460
Sewers,	—	2,395	2,395
			<hr/> 5,855

And, of course, the kills referred to above would be much enhanced if the numbers which fell victim to "private enterprise" were known.

In addition to the campaign for the destruction of rats on land the Officials of the Department of Agriculture for Scotland completed their efforts for the extermination of the rodent population within the sewers.

To leave matters, however, in that position would, to say the least, nullify our previous campaign as it is well known that sewers are the habitat and a good breeding ground for rats.

With that knowledge, therefore, the question of further action has been considered, with the result that two workmen, thoroughly trained in the art of rat destruction, have been detailed for this very important duty by the Works Department.

The Milk and Dairies (Scotland) Acts.

Registers.—At the end of the year the Registers stood as follows:—

Dairymen or Cow-Keepers,	17
Retail Purveyors of Milk (including Producer-Retailers) made up as under:—	462
Purveyors from shops milkhouses, etc.,	415
Purveyors from vans,	11
Purveyors resident outwith the City but registered to purvey milk within it from vans on streets,	17
Purveyors from shops or milkhouses together with vans on streets, ... ,	19

It will be observed that 17 Dairymen are on the Register—this represents a loss of 3 on the preceding year's figure. Two dairymen, long established in the business, gave up the keeping of cows. One discontinued the trade of dairying entirely and the other completed arrangements to obtain a supply from a producer in the county and has re-entered our register in the capacity of a retail purveyor of milk. The third removal concerns a dairyman who for years carried on a "dry" dairy. He, too, is now listed as a retail purveyor.

Two dairies at the close of the year were without cows and in the remaining 15 there were 515 cows and to the cowsheds concerned 256 visits were paid. Milkshops and other premises engaged in the retail sale of milk were inspected on 1259 occasions.

The constant supervision of dairy premises, etc., showed that they are well maintained and generally comply with the Bye-law requirements except in the case of those premises which recently came under our jurisdiction. These latter, though well kept, are not quite in keeping with our bye-laws which in terms of the Provisional Order cannot be enforced until 10 years have elapsed.

Dairymen and their servants were found in the main to be adhering to statutory requirements and making a good endeavour to produce clean and wholesome milk. Some difficulty is still experienced in procuring a proper supply of overalls for workers and likewise there remains a dearth of likely recruits for the work incidental to the dairy trade. These drawbacks are, it is hoped, only transitory and that the day will soon come when supplies of all kinds and personnel will be available.

There are four producers (including 2 Certified) who do not dispose of their milk by retail. All wholesale dealers are also engaged in the retail business.

1947 was singularly free from complaints of milk reaching the town in dirty cans. There were, however, local complaints of dirty bottles and bottles containing fragments of glass. In connection therewith those responsible were immediately contacted and censured or if outwith the boundary the appropriate official was informed. One milkman observed to be filling bottles lifted from customers' doors prior to delivery to others was severely reprimanded and ordered to cease this practice. Conveyance of milk in a railway van which had previously been used for the transport of fish was the subject of another complaint. The van in question was inspected and the prevailing conditions found to be most unsatisfactory. The matter was taken up with the Railway Company who promised to do their utmost to avoid a repetition.

During the year certain dairymen had improvements carried out at their plant and buildings. Extensive alterations carried out by one embraced, *inter alia*, the construction of new premises on modern lines provided with the most up-to-date equipment for bottling ordinary and T. T. milks. There was also installed an electric boiler capable of raising full steam in five minutes, a rotary bottle washer, sterilising chest and a steam jet for sterilising cans. Artificial lighting is of the fluorescent type. The entire equipment is devised to save labour and reduce contamination risks to a minimum.

Another dairyman had a brine cooler put into his premises in place of a water-cooled unit. A byre at a small farm was improved by additional ventilation and further works are contemplated. At another dairy a steam chest was installed. Insecurity of tenure

retards two farmers from going ahead with renovations at their premises. Articles 4 to 14 of the Milk and Dairies (Scotland) Order, 1934, are generally being complied with. It was found, however, that the sealing or locking of vessels containing milk conveyed by common carriers continues to lack proper observance. Unless an improvement takes place the question of statutory action by Court proceedings will have to be seriously considered.

There are 19 cowsheds, where 42 milk cows are kept, exempt from Registration, under Section 2 of the 1914 Act, "From which a person sells milk only in small quantities and for their own consumption to persons in his employment or to neighbours."

The Milk (Special Designations) Orders (Scotland), 1936/44.

At the end of the year the Register showed that the under-noted licences had been issued by the Local Authority:—

- 2 Producers of Pasteurised Milk; and
- 317 Retail Sellers thereof; and
- 4 Producer Dealers in Standard Milk;
- 4 Producer Dealers in Certified Milk;
- 1 Supplementary Licence for dealing in Certified Milk;
- 1 Supplementary Licence for dealing in T.T. Milk.

In addition there are registered:—

78 Dealers in Certified and 39 in Tuberculin Tested Milks.

A producer of T.T. Milk on fulfilling the statutory requirements regarding bottling at the farm was granted a licence to use the special designation "Certified" in relation to the milk produced by his herd.

Sterilised milk still continues to be produced in the City. The premises and sterilisation plant are frequently inspected and call for no criticism. Reports from the bacteriologist always show this milk as complying with the demands of the Orders. Reference to the foregoing table will show there are now 2 licensed pasteurisers of milk in this area — the second being given authority to use this designation in April, 1947.

At the premises where the H.T.S.T. process is carried out and which have been licensed for many years, new accommodation was provided for bottle washing and filling and storage of milk—an

instalment of the programme of alterations referred to in my report for 1946. Further work is still in progress towards completion of the scheme. The premises are subject to regular inspection and are kept in good working order.

In this case the " Milk Testing Scheme " is in operation, a fully qualified dairy chemist being in charge. There is a close co-operation between the firm and this Department, copies of all records of milk received and treated being available.

Regarding the new pasteuriser: this licence was granted to a dairy farmer. His plant is of the " Holder " type all in accordance with the requirements of the Orders with a capacity of 100 gallons of milk per hour.

At the premises of a retailer all incoming milk is subjected to heat treatment by means of the holder method. The milk is raised to the temperature of 145° F. and held thereat for approximately 30 minutes, thereafter being suitably cooled and bottled. The premises were subject to extensive alterations to adapt them for this process, but some equipment is still required before the granting of a licence under the Milk (Special Designations) Orders can be recommended.

Artificial Cream Act, 1929.

There is only one registration in force under this Act.

Stables and Piggeries.

Stables number 151 — 139 occupied and 12 empty. These were inspected on 674 occasions and with one exception called for no official intervention. A complaint was received from householders regarding fly infestation from a nearby stable. The stable walls and empty dungstance were liberally treated with an insecticide which speedily overcame the nuisance. The keeping of horses thereat was discontinued and the premises are now used for storage purposes only.

Piggeries.—335 visits were paid to 67 pig-stys within the City wherein approximately 1,255 pigs were kept. All the piggeries have been conducted satisfactorily. Notification of smell from a piggery adjacent to dwelling-houses was investigated and suasion brought to bear on the owner, who decided to remove his business to a holding in the county and the piggery was discontinued as such.

Advantage continues to be taken of the Defence (General) Regulations, which supersedes our Bye-laws anent the keeping of pigs. These places were regularly visited and, with minor exceptions, found to be kept in reasonably good order.

Offensive Trades.

There is no alteration falling to be recorded in connection with the premises utilised for this type of business. They are located at:—

Public Slaughter-Houses, East Dock Street—

Gut Cleaner (Private) (1).

Hide Factors (Private) (2).

Slaughterer of Cattle (Corporation) 1.

Tripe Cleaner „ 1.

Tallow Melter „ 1.

Blood Boiler „ 1.

No complaint arose in connection therewith.

Interments.

Section 69 of the Public Health (Scotland) Act, 1897.

Throughout the year 15 applications were received by this office craving assistance in connection with funerals in cases where there was no money or funds were insufficient to enable relatives to make their own arrangements.

In 14 instances these requests were acceded to, and in one other arrangements were made. The expenditure involved amounted to £31 16s, against which outlay £14 1s 9d was made good by relatives, etc.

The interments included 6 adults, 7 juveniles and 1 still-born infant.

Burial Grounds.—The following interments were made at the undernoted Burial Grounds within the Burgh during the year:—

Eastern Necropolis,	1,176
Western Necropolis,	809
Western Cemetery (Perth Road),	124
Barnhill Cemetery,	179
Parish Church Burying-Ground (Broughty Ferry),	0
Constitution Road Burying-Ground,	0
St. Luke's Episcopal Church, Downfield,	0
New Mains Cemetery,	7

Total, ... 2,295

Additional to the interments recorded above, cremations numbering 689 were carried out at the Dundee Crematorium, which particulars are available through the courtesy of the Secretaries.

No action by this Department in relation to burial grounds was called for.

HOUSING.

As recorded in my report for the year 1946 it was estimated that the number of houses required in Dundee during the following 15 years was 21,849. This figure was somewhat modified by the Corporation following consideration of a memorandum from the Department of Health for Scotland (21/1947) bearing on the housing programme, when a figure of 16,671 dwellings was returned as being necessary to meet "present day" needs.

During the year 1947 the number of new dwelling-houses for all purposes was increased by 998, a figure which, while a worthy contribution to our requirements, falls very far short of that necessary to overtake arrears of house building and to meet the needs of those living in condemned and low-standard dwellings or in overcrowded conditions. To the newly-weds and those married during recent years consideration must also be given. It is little consolation to them to know that in some 14 years from now at 1947's rate of building progress our present-day needs will be overtaken and during which time they can expect to be rehoused. The rate of rehousing occupants of condemned slum houses in permanent type dwellings is now extremely low. Throughout 1947 only some 46 houses of this type were so allocated, and, while other 41 were given the occupation of "re-lets," a much higher figure should be aimed at. It must be borne in mind that the majority of houses standing in the City as "Condemned" were so dealt with prior to 1939. A large percentage of the families enjoy a rent at the 1914 standard and at which rate we can only demand the very minimum of repairs necessary to keep the houses wind and watertight and the removal of conditions, for which the owner is held responsible, which can be classified as falling within the "Nuisance" clauses of the Public Health (Scotland) Act. As a result, living conditions in many of these houses are, to say the least, deplorable, and only when the building deteriorates into a state by which it can be classed as "dangerous" is rehousing hastened. There is also the possibility—it has indeed occurred in other parts of the country—that the owners of such buildings, receiving as they do a return which is

deemed insufficient to meet current expenditure, will, rather than incur an increasing debt, simply abandon the property, leaving their tenants in much the same position as a squatter.

A further point to be borne in mind is that 67% of these families require houses of one or two rooms, and the Corporation building programme quite rightly does not permit houses of those sizes being erected. Might it be suggested that arrangements be made whereby all families who are overcrowded and in occupation of one or two-roomed Corporation houses be given priority of larger houses and the subsequently vacated house allocated to a tenant of a condemned house. Under this system condemned properties, meantime partially occupied by only one or two legal tenants, could be wholly vacated and thereafter demolished. Had this procedure been adopted in pre-war years there would not have been so many partially vacated buildings available to squatters, of whom at the end of 1947 there were some 443 families occupying 451 houses.

Throughout the year a further 272 houses were re-opened either by Licensing or Requisitioning, but we are still faced with the problem of the illegal occupant living in premises entirely unsuitable, some of which have reached the " Dangerous " stage. Regular inspection of these premises is undertaken by the inspectorate, and particular attention directed to the families of known doubtful habits—fortunately the percentage of these cases is not large. On the credit side of this squatting problem it is, however, pleasing to report that there are many occupants who are endeavouring, sometimes under extreme difficulty to make their immediate surroundings as comfortable as possible under the circumstances.

A further 13 dwellings have been provided in ex-army hutted camps, but no additional mansion houses were requisitioned during the year.

The figures to date of houses re-opened for temporary occupation are as follows:—

Condemned Houses—	Totals to 31.12.47
Requisitioned,	471
Licensed,	306
	<hr/> 777
Hutted Camps—	
Number of dwellings provided,	63

Mansion Houses—

- 11 Requisitioned, providing accommodation for
49 families.

During the year authorisation was given for the appointment of a caretaker for Mid Craigie Hutted Camp, and it is to be hoped that conditions there will be more amenable to all concerned with the supervision of those whose tendency always seems towards dilatoriness.

Erections of new houses during 1947 totalled 998, comprising:—

- 223 permanent type dwellings erected by Corporation;
- 98 permanent type dwellings erected by the Scottish Special Housing Association,
- 43 permanent type dwellings erected by private enterprise; and
- 634 temporary prefabricated houses erected by the Government.

The latter category now includes a distinctly new type to Dundee, i.e., the aluminium house, while the permanent type house includes various forms of prefabrication — Swedish Timber, Atholl and Weir houses.

The Tuberculosis Special List at the commencement of the year showed 160 cases urgently requiring more suitable accommodation. During 1947, 36 cases were deleted from the list — 32 of these by removal to new houses. At 31.12.47 the number of cases remaining on the list was 124.

TABLE I.

Shows the number of houses which have been erected during the year 1947:—

	Rooms.				Total.
	1	2	3	4 etc.	
By the Corporation,	—	—	110	113	223
Government Erected Temporary Dwellings,	—	—	634	—	634
By Scottish Special Housing Association,	—	—	—	98	98
By Private Enterprise,	—	—	20	23	43
Totals,	—	—	764	234	998

TABLE III.

Gives the number of houses provided since 1919, excluding houses outwith the control of the Town Council erected by Private Enterprise, etc.

	1 Room	2 Rooms	3 Rooms	4 Rooms & over	Total
Town Council—					
1919-1923,	—	212	550	4	766*
1924-1928,	—	306	1,635	124	2,065
1929-1933,	—	618	1,264	114	1,996
1934-1938,	96	409	1,204	478	2,187
1939,	—	—	255	591	846
1940,	—	—	170	150	320
1941,	—	—	38	45	83
1942,	—	—	—	18	18
1943,	—	—	—	—	—
1944,	—	—	38	2	40
1945,	—	—	8	30	38
1946,	—	—	88	42	130
1947,	—	—	110	113	223
Fleming Trust,	192	158	146	—	496
Peter Gray Housing Trust,	24	—	—	—	24
Government Erected Temporary Dwellings—					
1945,	—	—	77	—	77
1946,	—	—	579	—	579
1947,	—	—	634	—	634
Scottish Special Housing Association—					
1946,	—	—	—	24	24
1947,	—	—	—	98	98
Grand Totals,	312	1,703	6,796	1,833	10,644

*Includes 76 Timber Huts.

The above Tables show 10,644 houses have been so provided, or an average of 367 per annum for the past 29 years.

TABLE IV.

Houses provided by Private Enterprise.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919-23,	—	1	37	92	130
1924-28,	—	2	462	565	1,029
1929-33,	—	1	43	467	511
1934-38,	14	58	483	637	1,192
1939,	—	2	115	77	194
1940,	—	—	11	12	23
1941,	—	—	8	3	11
1942,	—	—	9	5	14
1943,	—	—	2	10	12
1944,	—	—	6	—	6
1945,	—	—	—	2	2
1946,	—	—	10	3	13
1947,	—	—	20	23	43
Totals, ...	14	64	1,206	1,896	3,180

TABLE V.

Shops, etc., converted into dwelling-houses; houses reconstructed and re-opened, and large houses sub-divided.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919-23,	35	102	28	25	190
1924-28,	22	60	14	25	121
1929-33,	47	127	37	73	284
1934-38,	85	154	50	88	377
1939,	3	32	8	13	56
1940, .....	...	26	6	3	35
1941,	1	11	5	2	19
1942,	1	10	2	...	13
1943, .....	...	2	2	4	8
1944,	1	11	2	11	25
1945, .....	...	6	4	13	23
1946,	—	6	8	53	67
1947,	2	4	7	54	67
Totals, ...	197	551	173	364	1,285

Summary of Houses Provided — Period 1919 to 1947.

PROVIDED BY	1 Room	2 Rooms	3 Rooms	4 Rooms & over	Total
Table III. — Town Council, Trusts, Scottish Special Housing Association and Temporary Houses, ...	312	1,703	6,796	1,833	10,644
Table IV. — Private Enter- prise,	14	64	1,206	1,896	3,180
Table V. — Shops, etc., con- verted into houses,	197	551	173	364	1,285
	523	2,318	8,175	4,093	15,109

These tables show a grand total of 15,109 houses provided during the past 29 years, an average of 521 houses per annum over that period.

TABLE VI.

Houses Voluntarily Closed, Closed by Order, Demolished or turned into Business Premises:—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919-23,	136	128	25	40	329
1924-28,	212	166	49	68	495
1929-33,	747	872	153	162	1,934
1934-38,	871	892	151	145	2,059
1939,	823	857	83	28	1,791
1940,	201	155	30	12	398
1941,	90	51	11	3	155
1942,	53	44	2	2	101
1943,	52	40	2	4	98
1944,	58	58	7	9	132
1945,	39	47	5	8	99
1946,	72	58	9	33	172
1947,	47	52	11	37	147
Totals, ...	3,401	3,420	538	551	7,910

The total of 7,910 is equal to an average annual figure of 273 houses closed. From the total provided, 15,109, as shown on this page we must deduct the above 7,910, the number of dwellings which have gone out of use as such during the past 29 years, thus giving a net increase of 7,199 houses in the City, or an average annual contribution of 248.

HOUSING (SCOTLAND) ACT, 1925

The Dundee (Blue Mountains, etc.) Improvement Scheme, 1925; Confirmation Order, 1925, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1932, and comprised:—

1	2	3	4 Rooms	
Room.	Rooms.	Rooms.	and over.	Total.
59	45	4	1	109

The Dundee (Small's Wynd) Improvement Scheme, 1928, Confirmation Order, 1929, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1935 and comprised:—

1	2	3	4 Rooms	
Room.	Rooms.	Rooms.	and over.	Total.
139	147	26	3	315

The following table shows the dwelling-houses within the City which have been dealt with by Clearance Resolutions, and in addition the details of the properties adjoining these areas included by the Local Authority under Section 3 of the Housing (Scotland) Act, 1930, to make the schemes effective:—

HOUSING (SCOTLAND) ACTS, 1930/35. CLEARANCE AREAS.

Area Number	Date of Resolution	Included in Terms of			Totals	No. of Houses Still Occupied at Dec. 31, 1947.	Remarks.
		Section 1 Houses Premises	Section 3 Other Houses Premises	Other Houses Premises			
1 to 18	17.11.30	304	73	23	10	327	92
19 to 33	1.12.32	259	31	6	34	265	66
Queen St., B.F.	5. 3.31	15	...	1	3	16	3
33 to 34	17.6.32	50	...	2	...	52	...
35 to 91	3.11.33	840	101	113	74	953	175
92 to 100	14. 2.35	109	17	47	17	156	34
101	1. 8.36	43	5	3	17	46	22
103	6. 6.35	56	9	...	...	56	9
103	1. 8.35	...	...	...	...	...	...
104	3.10.35	...	...	...	...	...	...
105 to 106	2. 7.36	8	...	7	13	15	13
107 to 109	.....	...	...	...	...	...	...
110	1.10.36	24	...	...	8	24	8
111	1.10.36	26	...	...	1	26	2
112	1.10.36	6	...	...	...	6	...
113 to 115	1.10.36	52	5	1	4	53	9
116 to 117	1.10.36	21	5	...	3	21	8
118	9.11.36	23	...	...	...	23	...
119	3.12.36	25	...	3	...	28	...
120	4. 3.37	22	...	...	...	22	...
121	2. 9.37	13	...	...	...	13	...
122	2. 9.37	11	5	27	...	38	5
123	2. 9.37	67	6	...	1	67	7
124	2. 9.37	15	6	...	2	15	8
125	2. 9.37	18	4	...	1	22	4
126 to 126a	2. 9.37	65	1	16	2	81	3
127	2. 9.37	242	6	18	39	260	45
128	7.10.37	71	11	...	...	71	11
129	8.11.37	59	3	7	3	66	6
130	8.11.37	110	9	8	1	118	10
131 to 131b	8.11.37	73	11	51	21	124	32
132	10. 2.38	75	...	...	...	75	...
133	10. 2.38	99	5	...	...	99	5
134	10. 2.38	16	6	...	...	16	6
135	10. 2.38	55	2	17	39	72	41
136	3. 3.38	35	2	...	...	35	2
137	3. 3.38	48	1	...	9	48	10
138	3. 3.38	16	...	...	...	16	...
139	3. 3.38	313	41	...	3	313	...
140	3. 3.38	257	12	37	35	294	47
141	2. 3.38	125	5	...	...	125	5
142	7. 4.38	37	6	...	...	37	6
143	7. 4.38	33	...	...	...	33	...
144	7. 7.38	4	2	...	1	4	3
145	7. 7.38	45	5	...	1	45	6
146	7. 7.38	16	6	...	5	16	11
147	7. 7.38	19	3	12	1	31	4
148	7. 7.38	11	2	...	2	11	4
149	7. 7.38	24	8	11	12	35	20
150	7. 7.38	18	4	...	...	18	4
151	7. 7.38	10	...	...	3	25	3
152	7. 7.38	25	1	16	2	41	3
153	7. 7.38	77	15	7	3	77	18
154	7. 7.38	166	10	13	4	179	14
155	7. 7.38	62	3	...	9	62	12
156	7. 7.38	51	18	4	5	55	23
157	7. 7.38	112	4	20	11	132	15
158	1.12.38	7	...	...	...	7	...
159	1.12.38	30	1	...	3	31	4
160	2. 2.39	45	5	15	20	60	25
161	6. 4.39	30	2	43	10	73	12
162	6. 7.39	23	7	...	7	23	14
		4,511	487	541	448	5,052	935
		2,470 and 10 other premises occupied as houses.					

Table showing Number of Houses Closed under the Housing (Scotland) Acts, 1925-35, and still Occupied at 31st December, 1947.

Individual Houses, Clearance Areas,	(a)						(b)		
	Number of Rooms.						Size of Houses Required to Accommodate Families in (a)		
	1	2	3	4	5	6 and over.	Number of Rooms.	Pop.	Number of Rooms.
248	248	361	44	6	1	1	1	318	148
769	769	1,398	237	35	18	13	1,029	638	174
1,017	1,017	1,759	281	41	19	14	1,347	796	622
10,224	10,224	14,131	19	14	10,224	213	33	4	4
						3,170*			

*Includes accommodation required for 48 families occupying sub-let rooms or premises other than houses.

Summary in regard to Housing Conditions and Alterations during the year 1947.

I.—Particulars of Houses (59) Improved:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) At properties that had been "Closed by Order" for a period,	—	1	—	—
(b) Repair Notices Discharged,	2	—	—	—
(c) At instance of Sanitary Inspector and after Plans had been sub- mitted to and approved of by the Works Committee,	2	5	14	14
(d) Two or more houses made into one,	3	1	—	—
(e) Houses divided and improved, ...	—	—	—	17

II.—Other premises converted into dwelling-houses:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
2 Offices,	—	—	—	2
2 Stables,	—	—	—	2
1 Laundry (part of large house), ...	—	1	—	—

III.—New Houses completed and ready for occupation during this period:—

(a) Under the Corporation Housing Schemes:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 3—Clement Park,	—	—	—	6
Dryburgh, 1st Dev.,	—	—	42	12
Ward 7—Mag. Kirkton, 1st Dev.,	—	—	68	43
Do. Do., 2nd Dev.,	—	—	—	2
Do., 3rd Dev., Swedish,	—	—	—	50
	—	—	110	113
Total Houses — 223.				

(b) Temporary Non-Traditional Type Houses:—

Ward 1—Craigie Avenue (Arcon, Tarran and Aluminium), ...	—	—	124	—
Ward 3—Blackshade (Aluminium),	—	—	412	—
Ward 7—Macalpine Road (Arcon),	—	—	98	—
	—	—	634	—
Total Houses — 634.				

(c) Scottish Special Housing Association:—

Ward 7—Magdalene's Kirkton, 3rd				
Dev., Swedish,	—	—	—	78
Do., 3rd Dev. Atholl Steel,	—	—	—	20
	—	—	—	98
Total Houses — 98.				

(d) Private Enterprise:—

	1	2	3	4 Rooms
	Room	Rooms	Rooms	& over
Ward 3,	—	—	1	2
Ward 4,	—	—	1	—
Ward 6,	—	—	—	12
Ward 7,	—	—	5	3
Ward 8,	—	—	10	5
Ward 10,	—	—	1	—
Ward 11,	—	—	2	1
	—	—	20	23
Total Houses — 43.				

Giving a grand total of 998 new houses erected throughout the period.

IV.—Particulars of dwelling-houses closed (147) for human habitation during the year 1947 in whole or in part and vacated:—

	1	2	3	4 Rooms
	Room	Rooms	Rooms	& over
(a) Street widening,	—	3	2	4
(b) Converted into business premises, offices, shops or workshops, etc.,	1	—	—	2
(c) By absorption into other houses,	5	4	5	30
(d) Closed by Order, Demolition Order or Undertaking,	27	25	3	1
(e) Clearance Areas,	14	20	1	—
Totals,	47	52	11	37

V.—Dwelling-houses Demolished (61) during the year 1947:—

	1	2	3	4 Rooms
	Room	Rooms	Rooms	& over
(a) Dwelling-houses that had been Closed by Order or Demolition Order,	15	5	1	—
(b) Clearance Areas,	4	4	—	—
(c) Dwelling-houses that had been Closed by Undertaking,	12	10	1	—
(d) Street Widening,	—	3	2	4
Totals,	31	22	4	4

In addition to the above, 8 other premises were demolished, viz:—

2 Workshops, 1 Store, 3 Shops, 1 Bakehouse, 1 Factory.

VI.—Net Result for year 1947:—

The net result for the period is that there are 918 more houses available for human habitation than at 31st December, 1946, i.e., houses of:—

1 Room	2 Rooms	3 Rooms	4 Rooms and over
45 less	48 less	760 more	251 more

VII.—The total number of Dwelling-houses in course of erection (2,124)—all stages— at 31st December, 1947, is as follows:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Corporation Houses—				
Ward 3,	—	—	54	343
Ward 6,	—	—	—	30
Ward 7,	—	—	38	1143
	—	—	92	1516
(b) Temporary Houses—				
Ward 1,	—	—	62	—
Ward 3,	—	—	78	—
Ward 5,	—	—	50	—
Ward 7,	—	—	70	—
	—	—	260	—
(c) Scottish Special Housing Association—				
Ward 5,	—	—	—	192
(d) Private Enterprise—				
Ward 4,	—	—	4	1
Ward 5,	—	—	—	13
Ward 7,	—	—	10	5
Ward 8,	—	—	9	10
Ward 9,	—	—	4	1
Ward 10,	—	—	—	1
Ward 11,	—	—	1	5
	—	—	28	36

VIII.—Estimated Number of Inhabited Houses (excluding Institutions and other large establishments) within the Burgh of Dundee, as arrived at from the Quinquennial Survey undertaken during the year 1938 and corrected to 31st December, 1947:—

1 Room	2 Rooms	3 Rooms	4 & over Rooms	Total
4,862	21,729	15,408	10,251	52,250
or	or	or	or	
9.3%	41.6%	29.5%	19.6%	

of which approximately 4,819 are owner occupied.

Visits in connection with housing activities totalled 6,488, the object of which was to check up the position relating to houses closed but still occupied, survey of new houses, squatters, etc.

Overcrowding.

This problem continues, showing no diminution in its seriousness. Each day sees its new quota of members of the community reporting the conditions under which they live and asking that their names be placed on the overcrowding list, hopeful that speedy consideration and solution to their problem will be their reward. Our records contain many cases but to give present-day statistics covering the whole City is impossible—only a complete new survey would enable us to do this. Many applicants are already listed with the City Factor and their appeal to us on the grounds of overcrowding is made in an endeavour to hasten consideration of their case. There are also those who have come to us for assistance who have found more suitable accommodation through other channels, but are forgetful to advise us accordingly. Notwithstanding the provision of many houses for decrowding purposes this problem is still a major one and I would reiterate what I said last year that exchanges should be facilitated between those who have houses too large for their requirements and those who need greater accommodation. At least some degree of alleviation of this problem might be effected as well as being to mutual advantage of parties concerned.

The Rent and Mortgage Interest Restrictions Acts, 1920 to 1939.

Hereunder are shown the applications received from tenants craving Certificates testifying to the disrepair of their houses, also requests from Factors for Reports certifying that repairs had been

carried out to dwelling-houses so that the Certificate granted to the tenant might be annulled.

BY TENANTS			BY FACTORS OR OWNERS		
No. of Applications	Granted	Refused	No. of Applications	Granted	Refused
18	11	7	4	4	—

No remarks are required in connection with the above. In the cases where applications for certificates were refused the repairs involved were of a trivial nature and were carried out by factors upon notification.

Common Lodging Houses.

There are still only two establishments catering for those who frequent such places of abode, i.e.,

**3/5 Craig Street, with accommodation for 137 Male Lodgers; and
25 No. Lindsay Street, with accommodation for 61 Male Lodgers.**

They are both under the same management and have been maintained and conducted satisfactorily. 89 visits of inspection were made throughout the year. It will be observed that the Lodging House at No. 25 North Lindsay Street is now capable of housing 61 lodgers. Previously this house possessed two kitchens but one during the year was converted into sleeping accommodation.

The Seamen's Boarding House (Dundee Sailors' Home and Hostel) and the **Salvation Army Home and Metropole for Women** are well kept—clean and comfortable.

At the former there are a few permanent boarders and the rest of the accommodation is patronised by seafarers, "commercial," and members of H.M. Forces requiring temporary lodgings.

Houses Let in Lodgings.

This class of accommodation continues to be taken advantage of to the fullest extent, indeed—owing to the housing shortage—it provides "permanent" homes for many. There are 80 such houses registered within the city and to these 231 visits were paid. They have been kept in a manner acceptable to this Department.

In one house the presence of bugs was reported. In addition to disinfection measures, extensive repairs to the plasterwork of walls—involving practically the renewal of all plaster—was undertaken. Since the completion of the work there has been no further complaint.

Tents and Vans.

On several occasions during the year carnivals, etc., visited the city, the living vans of which were the subject of inspection throughout their sojourn. They were usually found to be kept in a very clean condition and on departure the proprietors of the shows are responsible for leaving the site free from nuisance.

At odd times a van will be located at some point within the city for a short spell. While there they and the sites are kept under observation to prevent any nuisance arising. If water and sanitary accommodation are not available or situated nearby, the owner of the ground is approached with a request for the provision of these facilities. The usual answer is an order to the would-be campers to be on their way. At a permanent fair ground the male and female sanitary conveniences were removed to permit the extension of an electric sub-station. Plans have been approved by the Local Authority for the provision of new accommodation to replace the facilities demolished. 132 visits in all were made to tents and vans.

Seasonal Workers, Etc.

As in the past, personnel for this type of employment continues to be mainly recruited from residents within the City who return to their homes at night.

Where accommodation is in use at any farm special notice is directed thereto during the period of occupancy.

Action was necessitated in connection with the unsatisfactory conditions prevailing at a timber hut. An undertaking was given by the responsible party to remove the workers and refrain from making use of the hut for similar purposes in future.

One hut, though suitable for housing workers, did not comply fully with the bye-laws so far as beds were concerned, i.e., double beds being in use. The owner on being consulted said that single beds had been provided but that the workers (Irish) dispensed with them and substituted double beds alleging that sleep was impossible in the single type.

The hut, otherwise satisfactory, contained kitchen, dining accommodation and separate dormitory and sanitary accommodation for the sexes.

Mechanical and Non-Mechanical Factories.

Trade or Business	Mechanical Factories	Non-Mechanical Factories
Blacksmiths, Cartwright and Carriage		
Builders,	6	11
Boot Repairers,	40	14
Clockmakers,	2	—
Cabinetmakers, Joiners and French		
Polishers.	74	31
Cash Registers,	1	—
Engineers, Cycle and Motor Mechanics,		
Enamellers and Vulcanisers, ...	122	40
Dental Mechanics,	9	21
Dress, Mantle, Underclothing and Cor-		
set Makers,	10	40
Electro-Platers, Wire Workers, Blind		
Makers and Bellhangers,	3	2
Florists,	1	4
Furriers,	2	5
Granite and Marble Cutters and Masons,	5	23
Hairdressers and Wigmakers,	—	71
Hotels and Restaurants,	2	27
Jute Spinners, Weavers and Calenderers,		
etc.,	74	—
Milliners,	2	10
Painters,	—	41
Photographers,	3	7
Piano and Gramophone Repairers, ...	2	21
Plastics,	2	—
Picture Framers, Gilders and Glaziers,	3	6
Plasterers,	—	16
Plumbers and Tinsmiths,	8	38
Saddlers and Leather Cutters,	5	3
Slaters,	—	26
Stamp Cutters, Engravers and Ticket		
Writers,	14	1
Sugar Boilers,	7	4
Tailors,	5	40
Umbrella Makers and Repairers, ...	1	—
Upholsterers and Carpet Sewers, ...	8	14
Waste, Rag and Metal Merchants, ...	9	9
Watch and Jewellery Repairers and		
Opticians,	1	34
Miscellaneous, i.e., Gut Manufacturer,		
Mica Makers, Clay Pipe Makers,		
Paper Bag Makers, Bottlers, Potted		
Meat Manufacturers, Oil Refiners,		
Manufacturing Chemists, Sack Re-		
pairers, Laundries, Basket Makers,		
Brush Makers, Scale Makers, Ex-		
panded Rubber, Fish Canners, Food		
Canners, Linoleum Manufacturers,		
Fish Filleting, etc.,	186	45
	607	604

The preceding Table details the numbers of Factories and the trades in which they are engaged.

To Factory premises 1,621 visits of inspection were made. At the new Industrial Estate, referred to in last year's Report, the work of construction continues as fast as the supply situation permits.

Sixteen Intimations were served under the Factories Act, 1937, requesting the provision of sanitary conveniences, renovations or improvements to existing accommodation, all of which have been complied with or are in course of receiving attention. During the course of inspections the conditions prevailing in Factories were such as can be described as satisfactory.

Throughout the year 28 Intimations were received from H.M. Inspector of Factories relating to:—

No.	Nature of Defect.	Improvements Effected after action by Sanitary Department.
7	Lack of Cleanliness,	In 7 cases.
2	Insufficient Water-Closet Accommodation,	In — cases.
13	Unsuitable Water-Closet Accommodation,	In 12 cases.
1	No Separate Accommodation for Sexes, ...	In 1 case.
1	No Thermometer in Workroom,	In 1 case.
1	Lack of Ventilation in Workroom,	In 1 case.
3	No Water-Closet Accommodation,	In 1 case.

—
28

In all cases where the necessary work is not recorded as being completed remedial measures were in process at the end of the year.

Bakehouses.

The following bakehouses are on the Register:—

Occupied mechanical factory bakehouses,	57
(Included in this number are 5 underground.)	
Occupied non-mechanical factory bakehouses,	21
(Included in this number is 1 underground.)	
Bakehouses, empty,	8

To ensure that Bakehouses were maintained in a satisfactory manner a regular system of inspection was carried out — 993 visits being made.

Two intimations from H.M. Inspector of Factories were issued calling for limewashing. The delay in undertaking this work arose from other works of improvement which were in progress at the time when limewashing is normally undertaken. On completion the premises were satisfactorily cleaned.

In last year's Report a scheme of improvement at a bakehouse was mentioned. This is still in progress—opportunity and availability of material setting the pace of the work.

Two non-mechanical factory bakehouses, upon the installation of power units, have been placed in the status of mechanical bakehouses. At one of these dressing-rooms for both sexes have been provided as well as a water-closet and washing facilities for females.

A complaint was received alleging that bakers' clothing whilst hanging in dressing rooms became damp, and at the end of the day's work the employees had to put on these damp garments.

Inspection of premises led to the conclusion that the dampness resulted from condensation—warm air from the bakehouse condensing when it reached the cold walls and ceilings of the dressing-rooms.

The firm was approached in connection with the matter and immediately agreed to improve the ventilation and instal heating appliances in the apartments. No further complaint has been received since the foregoing work was completed.

One non-mechanical factory bakehouse, now used solely as a retail shop was removed from the list, and we thus end the year with 86 bakehouses — 1 less than last year.

FOOD INSPECTION

Shops, Stalls, Barrows, etc.

ARTICLES OF FOOD SURRENDERED.

Articles.	Where Sur- rendered.	Quantities or Weights.				Reasons for Sur- render.
		Tons.	Cwts.	Qrs.	Lbs.	
Vegetables (tinned) ...	Shops, or stalls, or barrows on street, or food or wholesale stores, or railway stations and Ministry of Food Stores, etc.	3	9	2	26	Decomposition, Contamination, etc.
Fruit		30	6	1	27	
Mutton (tinned)		0	0	0	17	
Milk (tinned)		1	2	0	16	
Beef (tinned)		1	12	3	25	
Fruit (tinned)		1	7	0	3	
Cordials, etc.		0	0	2	0	
Bacon (tinned)		0	0	1	7	
Meat		1	13	2	11	
Fish (tinned)		0	7	2	12	
Tongue (tinned)		0	0	2	24	
Jam		0	19	2	13	
Vegetables		0	0	1	18	
Dried Fruit		0	3	3	7	
Sugar		0	4	2	15	
Luncheon Meat, etc. (tinned)		0	4	0	26	
Soup (tinned)		0	4	1	19	
Spaghetti (tinned)		0	0	3	19	
Pickles, etc.		0	5	1	2	
Cereals		0	2	1	4	
Fish		2	14	3	4	
Dried Milk		0	1	0	7	
Sausages (tinned)		0	1	3	18	
Fowls		0	4	1	5	
Peas and Beans		0	1	3	3	
Confectionery, etc.		0	5	3	0	
Cooking Fat		0	5	0	14	
Ice-Cream		0	0	2	14	
Miscellaneous		0	18	1	17	

The foregoing Table details the types and weights of food-stuffs which were examined and classified as unfit for food of man and destroyed, or, if suitable, transferred to the Cleansing Department for inclusion in their Salvage Scheme for Animal Feeding. In addition, 25 lbs. of Raisins and 34 lbs. of Flour were transferred to the Ministry of Food (Salvage Division) and miscellaneous food-stuffs, in toto 1 cwt. 0 qrs. 19 lbs., considered unfit for sale, were

returned through trade channels to wholesalers. 617 calls were made on this Department to inspect foodstuffs, the appearance of which raised doubt in the minds of the owners. All the goods condemned as unfit for the food of man were voluntarily surrendered, no "seizures" being necessary. 2,777 certificates were issued thereanent.

1,567 visits were made to shops and premises where the preparation, storage or sale of foodstuffs constituted the business. It was found on the whole that these places have been maintained in a cleanly fashion. Any untoward incident was indicated to the shopkeepers, etc., and instructions issued for its correction. There exists between this Department and those engaged in the food trade a close system of co-operation. Inspections carried out promptly lessen the risk of unsound food reaching the consumer and timely action by our Food Inspectors may be the means of saving a large proportion of foodstuffs from becoming entirely unfit for use—a consideration these days.

As previously mentioned 617 inspections of foodstuffs were carried out — perhaps a little amplification to this statement would be of interest. "Inspections" vary from the examination of a 4 oz. tin of fish in a small shop to the production of a huge collection in a wholesaler's premises of up to 70 separate items embracing hundreds of various sized tins, etc., of assorted foodstuffs collected from retailers or branch shops. It will be appreciated that examinations of this magnitude incur responsibility to say nothing of a considerable expenditure of time.

So much for the official aspect — what about the other side of the question — domestic negligence? To illustrate. Frequently bottles of milk are brought to the office with the averment that it was sour when opened and was "just as received from the milkman," or a fly-blown piece of meat may be produced the day after purchase. Eventually it is admitted that the milk was left all day in a hot scullery with the sun beating on it without hindrance—the meat left for several hours unprotected and exposed to the danger of flies. Surely at this late date in view of all that has been said publicly about food protection and the spreading of disease such occurrences should not be.

Opportunity is taken to mention under the heading of Food Inspection a few relevant matters.

During the summer numerous notifications were received from butchers regarding the condition of frozen imported beef and mutton delivered to them. Investigations revealed the complaints to be well founded, the meat being wet, soft and dirty and showing signs of incipient putrefaction. Enquiries elicited that the meat had been consigned to the city in vehicles unsuitable for the transport of such foodstuffs and had lain at the railway yards over a week-end instead of being put into cold store. It was arranged that where practicable the meat would be trimmed by the butchers to save such portions as were fit for sale. The trimmings and, in some cases, part carcasses were condemned and diverted to the Iwel Plant at the Public Slaughterhouses.

An allocation of several tons of bananas was distributed to wholesale fruit merchants and upon being hung in the ripening chambers immediately commenced "sweating." Instead of a gradual process of maturing the fruit quickly became soft, pulpy and rotten, while the skins remained green. The bananas were useless for human consumption and were condemned and disposed of to farmers for manurial purposes.

Advice was received from the Health Authority of a large port informing us of the dispatch to this city of a consignment of Tin Greasing Emulsion, a sample of which had been examined at the place of unloading and found to be bacteriologically unsound. The material in question is used by the baking trade for purposes indicated by its name. It is not a foodstuff, but from the nature of its use comes into close contact with eatables and must of necessity be free from contamination. In Dundee the consignees were contacted and a sample obtained and submitted for bacteriological examination. The report indicated the emulsion to have a very high bacteria count—well into the millions. The information was passed on to the local wholesaler—a firm of repute—who withdrew the material from all their customers and returned same to the makers who were at a loss to account for the condition of this particular batch. They produced the results of recent bacteriological examinations of their product which spoke highly of its purity. They also indicated their intention of thoroughly investigating the matter to determine the cause of the tinned product delivered to Dundee being unfit for use. The use of these fats, which are synthetic, has later been deprecated by the Department of Health for Scotland in their Health Bulletin, and it would also appear that the use of such material in the preparation of food is contrary to a Regulation issued by the Ministry of Fuel and Power.

The Labelling of Food Order, 1946.

This Order replaces in a consolidated form previous legislation dealing with this subject.

Its scope now embraces various articles of food and drink hitherto exempt. During food sampling and inspection operations the labelling of various foodstuffs purchased or examined was scrutinised. No infringements were observed.

The Public Health (Meat) Regulations (Scotland), 1932—Article 15.

In terms of the above Regulations three certificates of approval were in force at the end of 1947, in connection with storage accommodation for meat, etc., sold from off vans on the streets.

FOODSTUFFS ARRIVING AT THE PORT OF DUNDEE, EITHER DIRECTLY FROM ABROAD OR BY COASTWISE TRAFFIC.

The following two tables show the kind and quantity of foods arriving by waterway at the Port during the year.

The total is 13,928 tons 3 cwts. 3 qrs., as against 11,060 tons 12 cwts. 0 qrs. last year, and 35,446 tons 15 cwts. 1 qr. in 1945.

TABLE No. I.

Shows the foodstuffs arriving coastwise at the Port by steamers plying between Dundee and the Ports of London, Hull, Liverpool, Aberdeen, Newcastle, Belfast, Southampton, Leith, etc.

	Tons.	Cwts.	Qrs.
Baking Soda, Cream of Tartar, etc.,	4	1	2
Butter,	1	12	0
Cocoa and Cocoa Beans,	64	14	1
Coffee,	6	14	3
Confectionery,	23	0	3
Custard Powder,	1	2	1
Cooking Fat,	73	2	2
Essences, Cordials, etc.,	26	15	0
Flour,	3	15	0
Fruit (Dried),	0	2	1
Fruit (Pulp and Juice),	6	19	2
Glucose,	178	12	0
Jam,	3	0	1
Meat Extract,	76	7	1
Milk (Dried and Condensed),	48	12	2
Nuts,	30	14	2
Patent Foods,	1	18	3
Peas, Beans, etc.,	153	0	0
Sugar,	196	8	1
Pickles, etc.,	41	8	3
Soups, etc. (Tinned),	2,185	8	1
Semolina, etc.,	3	2	0
Spaghetti,	20	14	1
Syrup,	4	10	2
Tea,	301	0	0
Treacle,	262	6	3
Vegetables,	109	0	0
	3,828	3	3

TABLE No. II.

Shows the amount and kinds of foods arriving direct from abroad.

Sugar,	7,000	0	0
Tea,	3,100	0	0
	10,100	0	0

Fish Inspection at the Fish Market, Carolina Port.

It was unnecessary for this Department to intervene officially in connection with the fish discharged at the Fish Dock. In the course of routine inspection the premises thereat were found to be well maintained and call for no untoward criticism.

Public Slaughter-House, Meat and Cattle Market.

The undernoted table (kindly supplied by the Superintendent of Markets and Slaughter-Houses) gives the number of animals slaughtered and particulars of meat found to be unfit for human consumption.

Class of Animal.	Slaughtered.	No. of Animals.		Weight (in lbs.) of Condemned Meat.
		Wholly Condemned.	Partially Condemned.	
Cattle,	11,045	218	4,117	135,929
Sheep,	41,003	136	1,366	8,124
Pigs,	214	18	56	3,239

Note.—Calves are included as Cattle.

Regarding the sanitary condition of the Slaughter-Houses, this was satisfactory and called for no special measures.

THERE IS NO PRIVATE SLAUGHTER-HOUSE WITHIN THE CITY.

The Public Health (Preservatives, etc., in Food) Regulations (Scotland), 1925 to 1927.

Mince.—11 Official Samples were purchased with the object of ascertaining if they were in conformity with the above Regulations. The returns from the Public Analyst revealed 8 to be genuine and 3 as containing preservatives during the prohibited months or in excess of the permitted amount. In two instances proceedings were instituted, the responsible parties being fined £2 and £3 respectively. A warning was issued in connection with the third infringement.

Sausages.—13 Samples, all Official, were submitted for analysis and were found, upon examination, to meet statutory requirements.

Food and Drugs (Adulteration) Act, 1928.

Undernoted I give a statement of the number of samples purchased under these Acts during the last five years:—

	Purchased.	Genuine.	Adulterated.
1943,	614	593	21
1944,	602	583	19
1945,	623	611	12
1946,	625	604	21
1947,	639	625	14

Synopsis of the Samples Purchased this Year:—

I.—Samples taken in the ordinary course, with a view of following up by prosecution, if necessary, should adulteration be discovered.

	Purchased.	Certified to be	
		Genuine.	Adulterated.
Baking Soda,	1	1	0
Barley,	7	7	0
Butter,	11	11	0
Coffee and Coffee & Chicory,	5	5	0
Cream of Tartar,	4	4	0
Cinnamon (Ground),	4	4	0
Gelatine,	3	3	0
Ginger (Ground),	1	1	0
Lard, etc.,	10	10	0
Macaroni,	2	2	0
Margarine,	12	12	0
Milk (Sweet),	200	193	7
Mince,	11	8	3
Oatmeal,	1	1	0
Pepper,	3	3	0
Sausages,	13	13	0
Semolina,	3	3	0
Soya Flour,	1	1	0
Spice (Mixed),	1	1	0
Sugar (Icing),	3	3	0
Whisky,	5	3	2
	301	289	12

II.—The following sample was taken in terms of Section 8 of the 1928 Act:—

	Taken.	Genuine.	Adulterated.
Sweet or Fresh Butter,	1	1	0

III.—The undernoted “ test ” samples were purchased or taken:—

	Purchased or Taken.	Certified to be Genuine.	Adulterated.
Baking Powder,	9	9	0
Baking Soda,	11	11	0
Barley,	5	5	0
Butter,	3	3	0
Cinnamon (Ground),	8	8	0
Cocoa,	6	6	0
Coffee and Coffee Essence,	6	6	0
Cream of Tartar,	3	3	0
Desserts, Junkets, etc., ...	14	14	0
Egg Substitute,	1	1	0
Flavouring Essences, etc.,	9	9	0
Fruit (Dried),	1	1	0
Ginger (Ground),	9	9	0
Green Peas (Dried),	2	2	0
Ice-Cream,	50	50	0
Jams, etc.,	11	11	0
Lard, etc.,	3	3	0
Macaroni,	6	6	0
Margarine,	3	3	0
Meat and Fish Pastes,	20	20	0
Medicinal Salts, etc.,	27	27	0
Milk (Sweet),	18	16	2
Mustard,	10	10	0
Oils (Medicinal),	8	8	0
Oatmeal, Barley Flakes, etc.,	4	4	0
Pepper,	10	10	0
Pudding, etc., Mixtures, ...	5	5	0
Pudding, etc. (Tinned), ...	4	4	0
Rusks,	1	1	0
Sauce, Pickles, etc.,	13	13	0
Semolina,	9	9	0
Soup (Tinned),	5	5	0
Soya Flour,	1	1	0
Sild, Sardines, etc. (Tinned)	10	10	0
Spaghetti (Tinned),	4	4	0
Spices (Various), etc., ...	11	11	0
Vegetables (Tinned),	12	12	0
Vinegar,	5	5	0
	<hr/>	<hr/>	<hr/>
	337	335	2
Add Table I.,	301	289	12
Add Table II.,	1	1	0
	<hr/>	<hr/>	<hr/>
	639	625	14

With a population of 180,730, this works out to 3.53 samples for every 1,000 persons.

The average milk fat of the official samples taken each month was as follows:—

	No. of Samples Purchased.	Average Fat.
January,	16	4.01
February,	16	3.71
March,	16	3.72
April,	20	3.57
May,	16	3.69
June,	16	3.67
July,	16	3.60
August,	16	3.84
September,	20	3.96
October,	16	3.88
November,	16	3.69
December,	16	3.80
	<hr/> 200	<hr/> 3.76

The lowest milk fat recorded this year in **Official Samples** was 2.68 per cent. and the highest 7.98 per cent. The number of samples with milk fat below 3 per cent. was 4, and the number of samples with milk fat of 4 per cent. and over was 44.

Test samples of milk, as supplied to King's Cross Hospital, were submitted on 13 occasions, and the results declared by the City Analyst showed an average of 4.43 per cent. of fat.

The highest fat content was 6.60 per cent. and the lowest 3.40 per cent.

The City Analyst in his Return, which will be found further on in this Report, gives the figure of 648 samples as having been examined by him during the year. This Department's tables show 639 — the difference of 9 is explained by the fact that Mr Dargie has included in his total 5 miscellaneous samples and 4 of Rag Flock.

The samples not complying with necessary standards number 14, and embrace milk, whisky and mince. The latter, though included in Table I., have been dealt with under the heading "The Public Health (Preservatives, etc., in Food) Regulations (Scotland), 1925-27," and call for no further comment.

In all, 218 samples of milk were procured for analysis of which 9 (7 Official and 2 Test) were the subject of adverse reports. Of that number 5 were reported as containing added water as revealed by the Hortvet Test.

2 Samples showed a deficiency in Fat only;

1 Sample showed a deficiency in both Fat and Non-Fatty Solids; and

6 Samples showed a deficiency in Non-Fatty Solids alone.

The sellers of one sample, low in non-fatty solids, on being informed of the presence of added water in the milk obtained from them put forward a plea of interference during the period it lay at the shop door between delivery and the opening of the premises. They were severely warned and instructed that henceforth they had to make provision for the immediate reception of the milk into their premises upon delivery.

A sample, low in both contents, but having no added water, formed the subject of a report to the Crown Procurator-Fiscal. After information was received from the County Authorities regarding poor results of "appeal to cow" samples taken at the request of the producer proceedings were departed from. The cows responsible for the low quality yield were disposed of.

On reporting a sample low in fat to the producer an immediate request for "appeal to cow" samples was encountered and three such were obtained. They upheld the finding in connection with the original sample and were judged to be genuine by the Analyst.

Close enquiry was made in regard to the low fat content of the first sample, and it was eventually found that the milk sold to the Inspector did not contain the "strippings" from the animals producing the milk, and the samples taken on the "appeal to cow" manifested results similar to that pertaining to the first sample taken under like conditions. In my opinion such a milk is NOT genuinely of the nature, substance or quality demanded by the purchaser and should be treated as an offence under the Food and Drugs (Adulteration) Act. It was only after consultation with higher counsel that it was agreed to depart from statutory proceedings, there having been like cases pressed unsuccessfully in court a

number of years back. To my mind this is a question which merits serious consideration in connection with any new legislation governing milk standards.

This case, however, ended satisfactorily in so far as an undertaking was received guaranteeing that no milk would be sold in future at this dairy till all the cows were milked on each occasion and the "strippings" added to the aggregate.

Another sample, low in non-fatty solids, but not on account of added water, merited for the producer a warning and the injunction to mix thoroughly the milk from the entire herd. A local dairyman, obtaining his milk from a source outwith our control, was suspicious of his supply and had his suspicions confirmed by private analysis. He reported the situation to us and requested official action. Four samples were taken on arrival at a railway station within the city, and of these three were low in non-fatty solids and certified as containing added water. This adulteration was reported for prosecution and a fine of £5 imposed.

In connection with the last-mentioned case a further four samples (tests) were taken two days later under similar conditions, and of these three were up to a standard and only one low in non-fatty solids contained added water. This showed clearly it was not the herd that was at fault, and had the producer been prudent after being acquainted with the results of the official samples he would have ceased his malpractice.

A request from a creamery to sample milk from one of their suppliers was duly carried out by obtaining a test sample on delivery at their premises. The analysis showed a fat deficiency, and, as the producer/supplier was domiciled in the County, the appropriate authority was informed of the circumstance.

Nine samples of milk, or approximately 4.13% of a total of 218, failing to reach prescribed limits may not be looked upon as unduly alarming, but when 5 out of the 9 owe their deficiency to unnatural causes, i.e., the wilful addition of water, the matter takes a very different complexion and reveals a despicable side of the character of those responsible.

To-day producers have guaranteed prices and, in the case of Designated Milks, monetary recognition; surely these encouragements ought to be sufficient to ensure honesty and a fair deal for consumers. If not, then heavier penalties should be inflicted to drive home the adage that crime is not a paying proposition.

Whisky.—2 samples out of 5 submitted were returned as deficient in strength to the extent of 2.7° and 10.2° respectively. The sellers were charged and each fined £3. Later the Licensing Court refused a renewal of Certificates to the parties concerned.

Test Samples.—Apart from the 2 samples of milk referred to above, no “adulterated” returns were received from the City Analyst. It might, however, be appropriate to mention the case of a sample of “Barley Flakes,” which while being what it purported to be, was found to be infested with Mediterranean Meal Moth. Enquiries at the retailer revealed no further supply of this commodity — the packet bought for analysis being the last of the stock.

Miscellaneous Samples.—1 each of potted meat, coffee, dried eggs, kipperettes and cheese were submitted for examination on account of their appearance to determine whether or not they were fit for human consumption. All passed muster except the cheese, which, owing to excessive acidity, was classified as unfit for food of man.

Ice-Cream.—After considering the returns of the City Analyst in connection with the analyses of 50 samples of this article one feels most of them are worthy of being returned as adulterated. Briefly:—

35 Samples had a fat content of less than 3.00%, and of these 11 were under 1.00%. In only 10 instances was there an appreciable fat content, i.e., over 4.00%. (Included in this figure are 7 samples ranging from 5.99% to 9.96%.)

The **average** fat content was 2.67%, the **highest** 9.96%, and the **lowest** 0.12%.

If even a humble 3.00% standard, as with milk, had to be maintained then some disciplinary action could be taken; as it is, we can only deplore our lack of power.

Admittedly with the food situation being what it is we are not able to aspire to any great heights, but surely the quality of the ingredients allocated is such as would, if put to proper use, produce something better than that recorded above. The situation resolves itself into quality being sacrificed for quantity in order to meet a demand which exceeds the production of a satisfactory supply.

Turning for a moment to the bacteriological aspect of Ice-Cream, 46 specimens were submitted for such an examination, and as a resumé of the findings the undernoted is given:—

- B. Coli was absent in 33 cases in 3 tubes.
- B. Coli was present in 2 cases in 1 tube.
- B. Coli was present in 3 cases in 2 tubes.
- B. Coli was present in 8 cases in 3 tubes.

Taking 100,000 organisms as a datum line, of 45 samples examined:—

- 24 were under that figure;
- 10 exceeded that figure up to 1,000,000;
- 11 were either over the million mark or uncountable.

The lowest count was 1,150 and the highest (ignoring uncountable) 3,736,000.

The introduction of the Methylene Blue test saw the start of a grading system for Ice-Cream. This test was applied on 33 occasions with the following results:—

6 Samples returned as Grade 1				
3	„	„	„	2
11	„	„	„	3
13	„	„	„	4

Let it be said, however, that sampling over the year was in the main undertaken at premises where conditions were not of a high standard.

During 1947 a preliminary survey of all premises where Ice-Cream was made or sold was undertaken. Should the Regulations, upon promulgation, conform to the draft regulations we have had for perusal, the majority of the shops, etc., will require considerable adaptation to provide a separate preparing room having internal walls and floor of suitable impervious material together with accommodation and facilities for cleansing and sterilisation of utensils.

Where premises are used for sale only the main trade or business carried on will be a contributory factor whether the shopkeeper will be permitted to sell loose ice-cream or in pre-packed form. The suitability of the premises will also be taken into account; other adjuncts to be considered are the suitability of the person, personal cleanliness, the wearing of clean overalls, and facilities for the cleansing of equipment and utensils.

During the survey above referred three cases were discovered where manufacturing was being undertaken in unsatisfactory premises not registered in terms of our local Act. Our counsel prevailed—the manufacture being discontinued.

As a postscript to the foregoing it might be said that a number in the trade in anticipation of the Regulations and following many individual consultations at this office are bestirring themselves to have improvements and alterations carried out in an endeavour to meet all the requirements which can at present be foreseen.

Butter and Margarine.

Our Register shows four factories where the trade of Re-working Butter is carried on. There are also listed 33 Wholesale Dealers in Margarine. All the premises concerned were the subject of inspection which showed them to be satisfactorily conducted.

One official sample of re-worked butter was taken. The return of the Analyst showed it to be genuine.

Milk for Bacteriological Examination.

The undernoted samples were purchased or taken for bacteriological examination:—

Sweet Milk,	186
Do. (Pasteurised),	99
Do., (T.T.),	13
Do. (Certified),	63
Do. (Sterilised),	12
Do., (Standard),	53
	<hr/>
	426

These were forwarded to Prof. W. J. Tulloch at the University College, the duly appointed Bacteriologist. The Medical Officer of Health, in his Report for the year, will comment on the results of the examinations.

Rag Flock Acts, 1911-1928.

From the premises of local firms, four samples of the Rag Flocks used in upholstery, etc., work were obtained. They were returned by the Analyst as conforming to statutory requirements. The chlorine content per 100,000 parts of Rag Flock was as follows, 5, 10.8, 11.7 and 20.

Mr Andrew Dargie, B.Sc., F.R.I.C., Public Analyst, kindly furnishes the following interesting particulars:—

“ I have pleasure in submitting the following information on the examination of 648 samples examined during the year 1947.

The average quality of the Public Milk Supply as deducted from the examination of the 218 milks was as follows:—

Water,	87.44
Total Solids,	12.56
Butter Fat,	3.83
Non-Fatty Solids,	8.73
	<hr/>
	100.00
	<hr/> <hr/>

The distribution frequencies of the Butter and Non-Fatty Solids are shown in the following tables:—

Butter Fat		Non-Fatty Solids	
Per Cent.	Frequencies.	Per Cent.	Frequencies.
Below 2.79	2	Below 7.89	3
2.80—2.99	3	7.90—8.09	2
3.00—3.19	16	8.10—8.29	2
3.20—3.39	24	8.30—8.49	2
3.40—3.59	38	8.50—8.69	73
3.60—3.79	49	8.70—8.89	87
3.80—3.99	27	8.90—9.09	42
4.00—4.19	16	9.10—9.29	7
4.20—4.39	14		<hr/>
4.40—4.59	12		218
4.60—4.79	4		<hr/> <hr/>
4.80 and over	13		

Nine samples of Milk were deficient in Milk Fat or Non-Fatty Solids or in both constituents, of which two had a depression of Freezing Point of $-.532^{\circ}\text{C.}$, which is within the limit for genuine milk, and consequently there was no suspicion of added water. The deficient samples yielded the following results:—

	Butter Fat Per Cent.	Non-Fatty Solids Per Cent.	Depression of Freez- ing Point.	
Official	3.00	7.99	$-.492^{\circ}\text{C.}$	7.2% Added Water.
	2.70	8.58		
	2.81	8.35	$-.532^{\circ}\text{C.}$	No Added Water.
	3.72	7.76	$-.532^{\circ}\text{C.}$	No Added Water.
	3.93	8.10	$-.490^{\circ}\text{C.}$	7.5% Added Water.
	3.51	7.54	$-.456^{\circ}\text{C.}$	14.0% Added Water.
	3.05	6.76	$-.385^{\circ}\text{C.}$	27.4% Added Water.
Test	2.82	8.55		0.18% Deficient in Fat.
	4.36	8.01		5.7% Added Water.

Ice-Cream.

The chemical analyses have already been given in full, but a summary showing the maximum, minimum and average percentages of the various constituents is hereby appended.

	Maximum.	Minimum.	Average.
Water,	83.29	66.72	74.96
Fat,	9.96	0.12	2.67
Proteins,	4.65	1.71	3.17
Lactose,	6.37	2.34	4.42
Sugar,	13.66	6.40	10.23
Starch,	7.26	None	3.62
Ash,	0.98	0.27	0.66
Calories per 100 grams,	187	73	111
Phosphoric Acid (P_2O_5),	0.300	0.113	0.206

Mince and Sausages.

Sulphur Dioxide was absent in seven Mince and seven Sausages; one Mince contained 64 parts per million during the period when its presence was permitted, and other three samples contained respectively 176, 256 and 1,025 parts per million and were reported as contraventions of the Preservative, etc., in Food Regulations. All the Sausages conformed to Regulations, the amounts present being 48, 64, 96, 96, 128 and 150 parts per million of SO_2 .

Butter and Margarine.

The frequency distributions of water in these articles are shown below:—

Per Cent. Water.	Butter.	Margarine.
13.00—13.49,	1	—
13.50—13.99,	1	1
14.00—14.49,	2	1
14.50—14.99,	9	4
15.00—15.49,	2	8
15.50—15.99,	—	1
	<hr/> 15	<hr/> 15

All the Butters and Margarines were found to be genuine and they also conformed to the Preservatives, etc., in Food Regulations.

Whisky (5).

Two Whiskies, 37.7° U.P. and 45.2° U.P., were reported deficient in strength; the three others were genuine, 32.0° U.P., 32.8° U.P. and 29.8° U.P.

Spices.

The samples of Mustard conformed to the Food Standards (Mustard) (No. 2) (Amendment) Order, 1947, in that they contained between 0.29 to 0.35 per cent. Allyl Isothiocyanate, the stipulated minimum being 0.28 per cent. The amount of Mustard Oil varied from 27.14 per cent. to 30.37 per cent.

The percentages of ash in the other spices are given below and microscopically they were found to be of normal composition.

White Pepper, 1.27 to 2.57 per cent. Ash.

Black Pepper, 4.39 to 5.25 per cent. Ash.

Cinnamon, 3.55 to 5.23 per cent. Ash.

Ginger, 3.72 to 4.80 per cent. Ash.

Mixed Spice, 4.40 to 5.70 per cent. Ash.

Jams and Jellies.

These articles were of different types and of good quality. The percentages of Soluble Solids varied from 68.64 to 69.53 per cent., and they satisfied the Preservatives, etc., in Food Regulations. One sample of Quince and Plum Jam had been released after being in store for a number of years, but was found in excellent condition and free from poisonous metals.

Tinned Foods, Meat and Fish Pastes.

All these foods were examined for metallic poisons, but only mere traces of Tin were found; the amounts varying from 0.04 grains per lb. in a Meat Soup to 0.26 grains per lb. in an M. & V. Ration. One Tinned Kipperettes contained 0.12 grains Tin per lb.; this sample was quite sound and fit for human consumption. The minimum meat content of Meat Paste is 55% and of Fish Paste 70%; all the pastes satisfied these minimum limits.

One sample of Barley Flakes was badly infested with mites and was submitted to the Infestation Officer. There was a suspicion that a Potted Meat had been contaminated by an alkali, but the results of an examination did not confirm that view. A tin of Coffee showed slight bulging due to internal pressure, but the coffee possessed its natural aroma and was in good condition. A sample of Dried Eggs was found to be genuine and fit for human consumption. A sample of Cheese was found to have an acidity calculated as Lactic Acid of 5.85 per cent.; it showed signs of decomposition and had a very unpalatable taste and was unfit for use. The articles not commented upon were found to be of normal composition and satisfied the limits and standards required by law.

Rag Flocks Acts.

Four samples were submitted for examination, and all were found to conform to the standard set forth in the Acts. The amount of Chlorine as Chlorides was 5.0, 10.8, 11.7 and 20 parts per 100,000 respectively.

Fertilisers and Feeding Stuffs Acts, 1926.

The undernoted samples were examined and the results of analyses compared with the Statutory Statement, are shown below:—

Feeding Stuffs.

Sunflower Expeller Cake—Conform in Proteins, showing a deficiency of 0.91% in Oil and an excess of Fibre 5.36% over guarantee.

Sunflower Expeller Cake—Conform in all constituents.

Poultry Balancer Meal—Conform in all constituents.

Paisley Meal—Conform in Oil, showing an excess of Proteins 4.87% over guarantee.

Fertilisers.

- Bone Meal—Conform in Nitrogen + 4.06% Insol. Phosphate.
 Bone Meal—Conform in Nitrogen + 1.18% Insol. Phosphate.
 Staminax Fertiliser—Conform in Nitrogen, Sol. Phosphate
 and Potash, excess of Insol. Phos. 0.72%.
 Special Potato Manure—Conform in Nitrogen, Sol. Phos. and
 Potash + Insol. 2.17%.
 Scotia Fertiliser—Conform in Potash + Insol. 19.46% – 1.91% N.
 – 8.01% Sol. Phos.
 Scotia Fertiliser—Conform in Potash + Insol. 10.84% – 2.19%
 N. – 8.05% Sol. Phos.
 Scotia Fertiliser—Conform in Nitrogen, Sol. and Insol. Phos. +
 1.31% K₂O.
 Tomato Fertiliser—Conform in Nitrogen, Sol. and Insol. Phos.
 + 1.11% K₂O.
 Liquinure—Conforms.
 General Purpose Fertiliser—Conform in Sol. Phos. Potash + 0.84%
 N. + 0.96% Insol. Phosphate.”

Fertilisers and Feedingstuffs Act, 1926.

Fourteen samples in connection with the above were forwarded for examination throughout the year. These embraced:

FERTILISERS.		FEEDINGSTUFFS.	
Informal.	Formal.	Informal.	Formal.
8	2	3	1

The results of the analyses are detailed in the information supplied by the City Analyst.

In the case of a Fertiliser showing a deficiency of Phosphoric Acid, soluble in water, 8.01% below guarantee and an excess of Phosphoric Acid, insoluble in water, of 19.46%, a formal sample was obtained from the retailer, and this showed a deficiency of 8.05% and an excess of 10.84% in the same constituents. A further sample was taken from the premises of the wholesalers and upon analysis was returned as complying with the furnished guarantee. The retailer was requested to withdraw his stock from sale. This he readily agreed to do.

Regarding a sample of sunflower cake having an excess of 5.36% of crude fibre over the guarantee, this was followed up by a formal sample which conformed to warranty. All the others complied, being within the limits of variation permitted.

There was no appeal for sampling operations under Section 3 of the Act.

Pharmacy and Poisons Act, 1933, etc.

Premises wherein Part II. poisons are sold were the subject of supervision, and the arrangements for the storage and sale of the poisons were found acceptable to the Department, the owners continuing to comply with previously issued instructions regarding segregation and safety measures.

In the case of new entrants to the list, before sanction to commence sale is given, the premises are inspected and advice tendered on the conduct of the business.

At the end of the year there were 154 sellers listed under the above Act, at least one visit to each being paid throughout the year.

Shop Acts, 1912/38.

There are some 3,033 premises within the City subject to the application of the above Acts. A brief synopsis of the various trades or businesses carried on therein is as follows:—

Bakers (148), Butchers (159), Confectioners (197), Fish and Game Dealers (52), Fruiterers and Florists (95), Grocers, Teamen, etc. (575), Publicans, etc. (192), Restaurants, etc. (140),	1,558
Boot and Shoe Dealers (117), Drapers, Outfitters, Milliners, etc. (207),	324
Barbers and Hairdressers (120), Brokers (112), Chemists (70), Coal Dealers (38),	340
Electrical Accessories (29), Furnishers, China, Crystal, etc., Dealers (125),	154
Fancy Goods, Fine Art Dealers, Toys, etc. (70), Funeral Directors (21),	91
Gun Dealers (5), Glaziers (6),	11
Motor and Cycle Accessories (75), Music and Radio Dealers (39),	114
Newsagents, Stationers and Tobacconists,	210
Paint and Wallpaper Merchants (62), Photographers (8), Plumbers (14),	84
Saddlers (3), Ship Chandler (1), Surgical Instrument Dealers (2),	6
Watchmakers, Jewellers and Opticians (47),	47
Miscellaneous (94),	94

3,033

There are in addition to the above 62 shops standing empty.

To ascertain if the statutory demands relating to keeping of records, comfort and welfare of employees, etc., are being observed by employers, the inspectorate visited shops on 1,756 occasions. A systematic street patrol is also sustained, 790 hours being thus employed. Thirty contraventions were discovered. They were of a technical nature and due probably more to forgetfulness than intent. Verbal warnings were deemed adequate to deal with those small legal violations.

No case of the employment of young persons beyond the stipulated hours was found nor were any complaints of this nature received.

The requirements of Defence (General) Regulation 60 AB was duly given effect to for the prescribed period. In order to meet needs of industrial employees caused by the staggered working hours the local authority, after deliberation, fixed the hours of closing for shops as follows:—

Hairdressing Establishments—7.30 p.m. on Saturdays and 7 p.m. on other days.

Shops engaged in the retail sale of Foodstuffs—7 p.m. on Tuesdays and Fridays and 6 p.m. on other days.

Shops other than those specified above—7.30 p.m. on Saturdays and 6 p.m. on other days.

Generally these hours were acceptable to the majority of trades, although certain fruiterers did not take too kindly to the necessity of closing at 6 p.m. on Saturdays.

One shop which previously lacked sanitary accommodation for its employees was provided with a water-closet, and in Public Houses 7 water closets and 1 urinal were installed for patrons—6 of the water-closets being for the use of females.

Places for Public Refreshment.—There are 190 such premises registered within the City, and these were the subject of regular inspection. Up-to-date electrical dishwashing and drying equipment was installed in a number of cases.

Ice-Cream Shops.

At the end of the year the register contained 180 persons and 232 premises registered under Section 35 of our Corporation Order of 1935.

Theatres, Cinemas and Dance Halls.

Inspections to the above numbered 149: They were found to be kept clean, and so far as this Department is concerned there was only one occasion in which it was necessary to take action. This related to a cinema, one of the older places engaged in the business, and at our instigation the auditorium was cleaned and improvements carried out to the sanitary accommodation.

The alterations to the sanitary conveniences at one theatre comprising the addition of 4 water-closets and 1 wash-hand basin for females and 2 water-closets, 1 wash-hand basin and 1 urinal for males were completed.

The usual pre-licensing examinations were carried out at various halls where concerts, etc., were given.

Here it is opportune to thank cinema, etc., managers for their courtesy in displaying bills and screening slides in connection with a series of Health Lectures given in the Spring and Autumn.

PORT INSPECTION — 1947.

The foreign-going vessels arriving at this Port during the year show a slight increase in numbers and tonnage, and in the case of coasting ships, an increase in numbers but a decrease in tonnage.

Volume of Shipping Entering the Port in 1947.

	Number	Tonnage
(1) Foreign,	132	240,687
(2) Coastwise,	474	125,894

Vermin Infestation.

During the routine inspections that all foreign-going vessels coming to the Port undergo, a careful scrutiny was given to the crews' quarters to ascertain the presence of fleas, lice or bugs; no traces were found. On two occasions ships were cleared of cockroaches while they were undergoing fumigation by H.CN. for the renewal of their Deratization Certificate.

Deratization.

Details of Deratization are given in tabulated form at the end of this Report.

The Parrots (Prohibition of Import) Regulations (Scotland), 1930.

There was no occasion demanding action under the above Regulations.

Throughout the year the work at the Port was carried out on normal lines. Nothing on an unusual nature occurred.

Total number of verbal intimations,	132
Total number of rat notices issued,	Nil
Number of visits to ships,	235
Number of ships from infected ports (direct),	6
Number of ships from infected ports (indirect),	40
Number of ships from free ports (direct),	79
Number of ships from free ports (indirect),	7
Total number of ships from Foreign Ports,	132
Nuisances and defects attended to,	92
Forecastles cleaned,	16
Messrooms cleaned,	14
Galleys and storerooms cleaned,	8
Chocked or defective water-closets,	17
Dirty Water Closets,	12
Discharge of foul water on quay,	7
Leaking forecastles,	10
Crews bedding laundered,	5
Excessive smoke emission,	3

In addition, the following work was carried out while the vessels were in Port:—

Freshwater tanks cleaned out,	23
Forecastles washed or painted (walls),	17
Bathrooms or wash places painted,	12
Crews' messrooms washed or painted,	10
Water closets painted,	10
Bilges emptied,	25

"A"

Number of vessls subjected to measures of rat destruction, ...	3
On Ships—No. of dead rats recovered,	37
No. of rats examined bacteriologically,	Nil
On Shore—No. of rats destroyed (other than on ships), ...	310
No. of rats examined bacteriologically,	Nil
Species of rats recovered—On ships—30 Black, 7 Brown and Gray.	
On shore—190 Black, 120 Brown and Gray.	

"B"

No. of vessels fumigated by SO ₂.	...	...	...	Nil
No. of vessels fumigated by H.CN.	...	...	...	3
No. of dead rats recovered,	...	...	...	37
No. of vessels in which poisoning, etc., was employed,	...	...	...	Nil
No. of dead rats recovered,	...	...	...	Nil
Deratization Certificates issued,	...	...	...	3
Deratization Exemption Certificates issued,	...	...	...	25

Section 164 of the Burgh Police (Scotland) Act, 1892.**PROVISION AND RENEWAL OF RAIN WATER SPOUTS AND DOWNPIPES.**

Under the above Section the following work was executed,
viz.:—

	Lineal Feet.
New rain water conducting channel rhones or gutter pipes used in the renewing or repairing of the same,	3,005
New rain water conducting or downfall pipes used in the same way at the different properties,	2,100

General Prosecutions.

The prosecutions for the year were as under:—

Preservatives in Food.	Foods and Drugs (Adulteration) Act.	
(Mince)	(Milk)	(Whisky)
2	1	2
Total — 5.		

Detailed particulars of each are given under the various heads.

I am, Ladies and Gentlemen,

Your obedient servant,

W. M. SMITH,

Chief Sanitary Inspector.

